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PROGNOSTIC ASPECT OF EDUCATIONAL COMMUNICATIONS IN DIGITAL SOCIETY

Abstract. The issue of the use of educational communications in university students' training and prospects of their development in the digital society have been analyzed. The methodological basis for the study of prognostic aspects of modernization of educational communications is the combination of systematic, axiological, cultural and individual-oriented approaches. The aim of the paper is to carry out theoretical analysis of the issue and experimentally confirm the effectiveness of educational communications in psychological, pedagogical, social, economic and technological aspects. The analysis of modern philosophic and pedagogical studies of Ukrainian and foreign scholars demonstrated that the development and innovative use of educational communications is influenced by globalization and integrative processes, dynamic changes on international, national and regional labour markets, intensive implementation of informational support, rapid development of commercial activity and the sphere of educational services, including online services. The pedagogical experiment carried out at the National Aviation University, Ukraine, has verified the effectiveness of integrated use of educational communications in distant education. The result of the study proved that the development, modernization and use of educational communications are determined by the following factors: flexibility of educational communications and their orientation towards society requirements; their forward-looking character and focus on dynamic changes in all social, economic and industrial spheres, taking into account digitalization and new educational requirements of different segments of population connected with it; modernization of teaching content, forms, technologies and methods in different educational subsystems; equal access to quality education for all segments of population in the country. The approaches to pedagogical forecasting, development, modernization and the use of educational communications on national, regional and field levels have been offered. It has been found out that upgrading educational communications in the digitized society requires modernization of legislation in view of foreign and domestic innovative experience, increasing demands of employers, educational establishments of different levels of accreditation, state employment service and educational requirements of different segments of population.

Keywords: digitalization of society; trends; educational communications; pedagogical forecasting; pedagogical experiment; digitalization of educational process.

1. INTRODUCTION

Formulation of the problem. Social and economic development requires modern ways of specialists' training and prognostic substantiation of innovative approaches, certain methods, implementation of which enables creative use of cutting-edge educational communications in digitalization of educational process. Their implementation is expected to enhance the qualitative changes in the society. The use of educational communications for the training of a new generation of specialists in the system of higher education is gaining more importance in the context of digitalization. The growing interest of scientists in the problem of communication in digital society became especially noticeable in the second part of the 20th – the beginning of the 21st century. The main reason for it was rapid development of economic cybernetics, mathematic theory of communication, electronic systems of communication, etc. Due to this, the terms "communication", "information", "innovation", "informational exchange" as well as "digitalization" came into wide use. Simultaneously, the transfer to digitalization of educational process requires new didactic approaches to some notions in modern pedagogy.

Important prognostic ideas of digitalization in social life are presented in some state legislative documents, which were adopted during the last two years in Ukraine. All of them are related to the sphere of ICT and digitalization [1]. We should name the most important among them: Law "About the National Program of Informatization" (1998) [2], Regulation of the Cabinet of Ministers of Ukraine "About Approval of the Concept for the Development of Digital Economy and Society of Ukraine for 2018 – 2020 and a Plan of Measures for its Implementation" (2018) [3]; Digital agenda of Ukraine – 2020 [1].

As many Ukrainian scientists underline, the potential of information and communication technologies of the last generations may provide personification of educational process and help to overcome reproductive character of teaching in higher educational establishments [4]. Further prospects are connected with introduction of interactive technologies, super-power computers, as well as the development of telecommunication networks and improvement of open education platforms (Moodle, ZOOM, Google Classroom, Google, Google Suite, Google Meet, Ed Dojo, Edmodo and the like).

In such new conditions a new didactic concept is required, interdisciplinary in its semantics. Medial pedagogy as a sub-subject of pedagogical science is also considered [5]. One of such important new didactic concepts is "educational communications". In the authors' opinion, educational communications are an interconnected set of methods, techniques, tools, modes and formats of essential educational and socio-cultural information delivery that relates directly to education content and coordinates with didactic assignments [6]. Such interpretation of educational communications means the special organization of methods for education content delivery in the form of scientific, methodological, illustrative, theoretical, reference, empiric and other information. Being a category of wide scope, educational communications can be interpreted as such phenomenon that forms special conditions for knowledge delivery, necessary for full-fledged studies in modern higher educational establishments.

Variability of the concept "educational communication" is explained by general character of the notion "communication". It is a well-known fact that communication may be considered in two meanings: 1) an announcement or interaction; 2) the processes of information exchange, exchange of semantic meanings between two or more people [7, p. 378].

But in spite of the fact that the questions of communication in different spheres of human life have been studied by Ukrainian and foreign scientists, the issues of pedagogical forecasting of educational communications development in digital society are left without proper attention.

Analysis of recent research and publications. Theoretical basis for short- and long-term forecasting is grounded on modern concepts of educational systems functioning in the context of globalization, theories of continuous adult education, theory and methodology of professional and comparative education, psychology of professional education and psycho-pedagogy (according to K. Rodgers and I. Ziaziun) with due regard for individual and professional qualities of the participants of educational process.

Retrospective analysis of philosophers' (V. Andrushchenko, V. Vernandskii, B. Gershunskii, J. Dewey, V. Kremen), scientists' (S. Goncharenko, L. Lukianova, V. Lugovyi, N. Nychkalo, S. Sysoeva), psychologists' (G. Ball, L. Karamushka, S. Maksimenko) papers allowed us to determine modern trends in education, directed at forming cultural, moral, ethical values and lifelong professional development. We should bear in mind the importance of understanding educational communications as a goal-oriented activity, aimed at a person's development, establishment of creative learning environment for self-realization and self-development and forming future specialists' professional competence.

The problems of innovations in higher education were studied by foreign (A. Duglas, P. Zeus, G. Shucklock and others) and Ukrainian scholars (V. Andrushchenko, V. Kravchenko, O. Romanovskii, V. Kremen [8], [9] and others). Nowadays the issues of educational communications development and practices of their management are in the focus of such scientists as V. Bykov, O. Burov, V. Lugovoi, O. Spirin [4] and some others. We should note that the studies of pedagogical forecasting of the results of educational technologies development have become very topical in the time of digitalization.

Irrespective of current experience in the development of educational communications that has been going on for some years, complexity and versatility of educational services in educational community explains the absence of a commonly accepted definition of this notion. Many scientists (Anderson & Ponti, 2014; Harvey, et al., 2014; Rovai, 2002; West, 2011, Young, et al., 2001; Young 2006) studied various aspects of distance education (a student and teacher's roles, comparison of distance and classroom teaching, the influence of distance education on cognitive strategies etc.).

Yen-Chun Jim Wu & Ju-Peng Shen in their academic research [10] aimed at complete understanding of higher education for sustainable development. Its analysis gives insight into strategic perspectives of higher education. Others scientists (R. Fidler [11], J. Prucha [12], R. West [13]) are unanimous in the thought that educational communications should be considered in the context of teaching communication: as exchange of information between participants of educational process, performed verbally (sound 38%, words 7%) and non verbally (55%). In educational process the way a message is arranged plays a considerable role. Ideas, information, feelings, relationships, skills are all elements of the feedback between participants of educational process.

Researchers' interest in the integration of technologies in educational process correlates with the transfer from teacher-centered to student-centered education (Akyürek, 2018; Trucano, 2005). The use of technologies in educational process is perceived by students as better connection that results in a higher level of their satisfaction from communication with their teacher, better support from the teacher and students' more active participation in classroom work (Fiksl, Flogie & Abersek, 2017). So, the relevance of the study of the concept of communication using modern educational technologies is grounded on their increasing importance in educational process (Akyürek & Afacan, 2018).

In L. Suciua' research [14] much attention is paid to educational communications via

informational technologies and social distancing as a result of such communication. The author stresses that such pedagogical communication is characterized by distant connections between interlocutors and comes to the conclusion that social distancing negatively influences them because of possible blocking of the information transfer [14, p. 400].

We should mention that educational technologies are always associated with relative computer technologies and the Internet (Vincentas & Rytis, 2007). That is the reason why the research of educational technologies is mainly concentrated on computer and Internet support and teachers' digital training (Britten & Cassady, 2006). Davis Hung [15] suggests considering educational communications to be interaction of individuals from the aspect of cognitive process.

The analysis of international research on the issue of educational communications demonstrates that since the end of the 20th century and till now the notion "educational communications" has been interpreted as pedagogical communication of participants in teaching process.

The purpose of the article is to carry out theoretical analysis of educational communications development in the digital society and experimentally confirm the effectiveness of creative use of innovative educational communications in university students' training in distance education.

2. METHODS OF RESEARCH

In the process of our research the following theoretical and empirical research methods were applied: analytical method for the study of philosophical, psychological and pedagogical theories, identification of theoretical and methodological basis for the research; systematization and generalization of scholars' approaches to different aspects of the issue under research; students' diagnostics (methodology for identification of general effectiveness of teaching activity (by I. Todorova); pedagogical experiment for identification of effectiveness of educational communications. In the experimental part of the research 71 students of Research and Educational Institute of Innovative Educational Technologies of the National Aviation University, Ukraine, took part. The research was carried out during 2018 – 2020 academic years. For the interpretation of received results we also applied methods of mathematical statistics.

3. THEORETICAL BASIS OF THE RESEARCH

With the aim of prognostic substantiation of the ways of improving educational communications in Ukraine we have analyzed scientific-methodological developments in Ukrainian pedagogy as well as the results of comparative researches that allow us to identify constructive ideas in foreign experience in this sphere. Methodological basis of this process is logical combination of modern approaches (axiological, cultural, individual, systematic) in higher education, integrating priority changes in the system of international values.

The methodological paradigm of the use of innovative technologies in the sphere of educational communications suggests active introduction of interactive forms and methods for conscious involvement of an individual in the learning process, formation of creative environment for learning, the use of innovative pedagogical techniques based on individualization and differentiation.

4. RESULTS AND DISCUSSION

The authors are unanimous in the idea that prognostic aspects of educational

communications in the context of digitalization should be studied taking into account modern trends in lifelong learning, namely: content expansion of higher and vocational education; transition from functional-occupational training to independent learning activity; increase in human resource development investments; access to education for all segments of population; innovative character of educational technologies; development of career guidance and career development services.

Our idea about the main task in the development of educational communications forecasting in the context of digitalization lies in identification of trends in the development of education on different levels (state, regional and local), taking into consideration field peculiarities and students' future occupational sphere.

Forecasting in philosophy is determined as study of certain perspectives in evolution of some phenomenon [16]. In "Encyclopedia of education" pedagogical forecasting is defined as one form of scientific concretization which is in close connection with planning, designing, goal setting and management [17, p. 337]. Theoretical analysis of relevant information proves the fact that only taking into account the results of scientific forecasting of educational communications content it is possible to ground a set of measures for effective educational activity. We should bear in mind that pedagogical forecasting is logically connected with pedagogical design. Pedagogical forecasting has a special character, as it is carried out in some system of certain values and norms. The direct connection of forecast results and managerial decisions both on global and local levels becomes obvious for social and educational processes. Goal-oriented aspiration to deepen this connection influences the development of pedagogical forecast.

The necessity of prognostic substantiation of educational communications in the context of digitalization in Ukraine is caused by the following factors:

– global awareness of the importance of education and its influence on labour force training; existence of international and national labour markets, international cooperation; dynamic development of intensive technologies;

– growing access to education, knowledge and services; rising quality of lifestyle; economic development; increasing competitiveness; new requirements of Information society; improving state security; establishment of complex state management [1];

– modernization of educational communications under social and economic transformations;

– expediency of educational communications orientation towards humanistic and universal values;

– objective need for regional strategies for modernization of education incorporating social, economic, demographic, national, cultural factors and specificity of some regions.

The analyzed information brought us to the conclusion that the key priorities aimed at educational communications forecasting in the context of digitalization are: humanization, unity of socialization and professionalization of a personality, differentiation, integration, consistency, consecutiveness, continuity, and forward-looking approach.

In our research we distinguish conceptual ideas of prognostic development of educational communications in digitalization. They are: enhancing free and equal access for different segments of population to education with digital technologies; openness of education, its flexibility, dynamic character; establishment of necessary conditions for higher education.

Pedagogical forecast of educational communications development and their use in digital society requires consideration of modern trends in education. Dynamic changes on labour market caused the appearance of new trends in educational communications for professional training, retraining and further development. In higher and vocational educational establishments, the results of psychological and pedagogical researches positively

influence communications for future specialists' professional training. At the same time these communications should not only properly react to social, economic, political and cultural changes in Ukraine, but also take into account the results of short-term and long-term forecast in this sphere.

Having studied concepts presented by Ukrainian and foreign scientists, we can distinguish between two main groups of trends that stipulate necessity of modernization of educational communications and the use of technologies in the process of digitalization:

1) Extra educational trends caused by globalization, international social and economic processes, cultural and industrial situation in the country. Increasing competition between countries for leadership, growing problems of humanity, pace of scientific and technological progress, dynamics in labour market development, establishment of independent states, globalization, regionalization and decentralization can be referred to them [18], [19];

2) Educational trends proper, caused by the specific character of the development of education worldwide and on the local level, the development of research and educational systems and their unique role in enhancing social and scientific progress. Mass character of higher and vocational education, transformation of education into the service sector, digitalization of educational process as well as highly qualified teaching staff training are referred to them.

Considering these factors in the group of extra educational trends we have distinguished a subgroup of trends on international level. According to it, increasing demands for the use of educational communications appear in Ukraine:

– *Growing globalization* connected with mobility of people, exchange of cultural and informational streams, resources and universalization of scientific and technical progress. Globalization gives rise to interdependence of events (phenomena, processes) in the world and transformation of the world into an integrated system of interconnected states. Blurring of borders and establishment of independent areas for mutual cooperation and spread of information take place due to the development of ICT technologies. According to H. Brunner, the global system of knowledge is forming, uniting cultures of different nations, embracing economy, politics, science and education [20].

– *Transition to Information society.* Industrial revolution in the second part of the 20th century marked transition from postindustrial to Information society. The level of social and economic development of modern postindustrial countries is determined by the spread of knowledge and information [20]. It should be marked that the transition to informational, and then, to digital society stipulates crucial changes in all spheres of the society.

– *Accelerating speed of scientific and technical progress, widening international information system.* Simultaneously with intensively developing science, industry, ICT, we can observe shortening the length of time for updating scientific information. We are sure that this trend marks acknowledging the leading role of lifelong education in the 21st century. The speed of ICT spread has become crucial for the development of many establishments and organizations, an important means of industrial modernization, implementation of the most effective technologies with the aim of raising the quality of products and, as a result, quality of people's life.

– *Economic, social and cultural regionalization.* Some scholars define it as the opposite trend to globalization that aims at disintegration of big organizations to preserve established labour relations, peculiarities of national and cultural identity of people on big territories [15].

We should single out the main factors which, according to Ukrainian scientists (V. Bykov [4], [21], L. Lukianova [22], N. Nychkalo [23], O. Spirin [4], A. Gurgii [4]), influence the development of educational communications. They are especially important during *establishment of Ukraine as independent state,* as bringing up a patriot of the country

and a citizen of the world, who is aware of his/her national heritage and universal human values is the most important task. This task calls for new approaches to upgrading educational communications in order to enable citizens to acquire social experience via the development of culture of social communication, digital competence, etc.

The other important factor is *dynamics on international and regional labour markets*. Ukraine, like the majority of European countries, is a participant on global and national labour markets, which demand certified specialists and well-established communication.

So, short-term forecasting of educational communications effectiveness depends on different factors (motivation of the students of higher educational establishments, individual readiness for learning activity, teachers' readiness for professional development) and requires innovative approaches. We consider effectiveness of educational communications to be the result of well-arranged teaching activity. We would like to stress that taking into consideration short-term forecasting enables achieving such effectiveness.

Comparative analysis of educational communications effectiveness on different stages of the pedagogical experiment is also very important for our research.

At first, we formed two groups of students: experimental (EG) and control group (CG). Experimental group included 29 students (from two academic groups), who in 2019 – 2020 academic year studied a separate module in Mathematics in distant mode at Basic and General Subjects Department in the Research and Education Institute of Innovative Educational Technologies of the National Aviation university, Ukraine. The control group included 42 students, who in 2018 – 2019 academic year did the same course but in traditional full-time mode. The specific feature of educational communications was that in the experimental group teaching was conducted with platform Moodle and ZOOM service.

The research in the experimental group aimed at verifying effectiveness of distance learning of mathematics. For this purpose, a distance module was designed for 25 academic hours and delivered in this group. We should stress that the design of the distance module required special teaching methodology. The teaching strategy for the distance module included: documents for organization of learning process (curriculum, thematic plans of courses, schedules etc), student aids (lectures, tests, manuals, guides etc.), schedules of full-length education, in which web resources used for distance learning were distinguished.

The analysis of the teaching methodology for the distance module in educational communication with the students from the experimental group allowed us to find out its positive qualities in communication: 1) the possibility of interconnection of different educational systems, i.e. a distance course may be an integrative tool for higher education; 2) possibility to use all the components of the course many times, enhancing effectiveness of learning; 3) adaptability, i.e. possibility to implement innovative pedagogical technologies without redesigning education content and methods (including their combination) for student-centred and customized teaching; 4) accessibility: possibility to work with distance course irrespective of location (locally and distantly, from home PC, from mobile devices iOS, Android).

According to I. Todorova's methodology we got the results presented in the following levels: very high, high, average, low and very low. The levels of general effectiveness of students' learning activity for the experimental and control groups are shown in table 1.

Table 1

General effectiveness of Experimental and Control groups students' learning activity in distance learning

Students	Levels of Effectiveness				
	very high	high	average	low	very low

	quan-tity	%	quan-tity	%	Quant ity	%	quant ity	%	quan-tity	%
CG (42 students)	16	38,09	8	19,05	7	16,67	11	26,19	0	0,00
EG (29 students)	12	41,38	7	24,14	5	17,24	4	13,79	1	3,45

Generalized results of the pedagogical experiment are presented in figure 1.

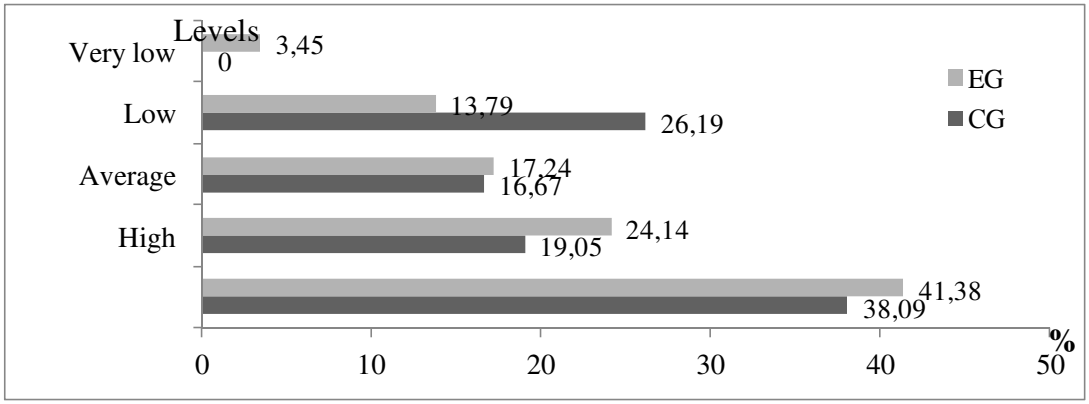

Fig. 1. Levels of general effectiveness of students' learning activity in the experimental and control groups

As seen in the figure above, in the Experimental group indicators of very high and high levels of general effectiveness of learning activity in distance education are higher than those in the Control group.

For checking discrepancies between average indicators in the experimental and control groups we should formulate two alternative hypotheses.

Null hypothesis (H_0) states that there are only random discrepancies between average indicators of general effectiveness components of students' learning activity in the experimental and control groups.

Alternative hypothesis (H_1) states that there are not only random discrepancies between average indicators of general effectiveness components of students' learning activity in the experimental and control groups.

In our experiment experimental and control groups took part, so for verifying our hypothesis we use Student's t – distribution for them. Degree of freedom for determining thresholds t_{α,n_1+n_2-2} equals to 42 + 29 – 2 = 69. Threshold of Student's t – distribution for statistical significance of 0.05 level is $t_{crt} = t_{0,05,69} = 1{,}995$ (*crt* – critical). According to calculations we have $t_{emp} = 2{,}76$ (*emp* – empirical).

So, we got Student's t – distribution which is more than $t_{crt} = t_{0,05,69} = 1{,}995$. It means that there are not only random discrepancies between average indicators of general effectiveness components of students' learning activity in the experimental and control groups. It gives evidence about important aspects and discrepancies in the implementation and effectiveness of educational communications in students' groups.

The obtained results confirm that the effectiveness of teaching activity in the mode of distance education communication (the experimental group indicators) is higher than traditional (classroom) educational communication (the control group indicators). Thus, distance education is effective in case of integrated use of educational communications.

We should clarify that, in our opinion, the essence of educational communications effectiveness in distance education depends on technical facilities of higher educational establishments for providing proper communications in teaching process.

Thus, we can claim that effectiveness of educational communications in distance learning should be studied in different contexts: economic (innovations in education), psychological (readiness), pedagogical (professional expertise), technological (equipment). So, effectiveness of educational communications has been determined as an integrative quality and graphically is presented in figure 2.

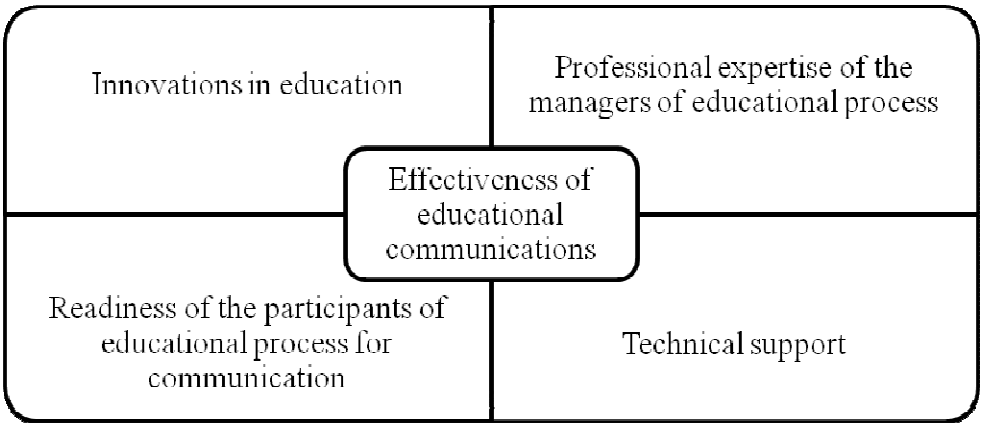

Fig. 2. Components of effectiveness of educational communications

Our research allows us to state that the use of educational communications in distance teaching increases its effectiveness, influences psychological and pedagogical activity, as educational communications have the following characteristics: a set of interconnected methods, tools and processes, necessary for organized and goal-oriented effect on student's individuality; they enhance quality of education, technological and process-productive functions of pedagogical activity; they encourage the achievement of determined goals for students' academic development.

Long-term forecasting of upgrading educational communications suggests the following steps: the analysis of prognostic components of state education policy; prognostic assessment of employment rates either in the country or in some regions; study of certain region needs in specialists in relative sphere; policy governance in encouragement of educational organizations; establishment of informational and legislative infrastructure.

In long-term forecasting for a certain participant of educational process educational communications may fulfil the following functions: integrative – students' cultural and social integration into labour market conditions; adaptive – adjustment to social relations in rapidly changing external environment; informational – access to necessary information; social – social experience utilization, career guidance support.

5. CONCLUSIONS AND PROSPECTS FOR FURTHER RESEARCH

The results of the experiment confirm that effectiveness of teaching activity in distance education communication (the experimental group indicators) is higher than traditional (class room) educational communication (the control group indicators) under the following conditions: sufficient level of expertise of the staff responsible for educational process; students' involvement in educational process; appropriate didactic, organizational, pedagogical and technological conditions for practical implementation of different educational communications. After having carried out prognostic substantiation, we came to

the conclusion that educational communications should be flexible to meet the needs of rapidly changing society; they should be oriented towards dynamic changes in social, economic and industrial spheres and educational needs of the society; they should involve a flexible system of educational content, forms, technologies and methods; they should enhance equal access to qualitative education for all segments of population. All efforts of education process participants are expected to strengthen their responsibility for educational communications development. The above-mentioned factors encourage pedagogical forecasting of educational communications effectiveness in the digital society.

The analysis of legislative documents, scientific papers, and our research allow us to offer scientific and methodological recommendations, which define the main directions in educational communications development. They are:

– improvement of curriculum design for professional training of different types of population;

– enhancement of proactive scientific and methodological support of professional training;

– provision of education on the basis of implementation of innovative approaches to curriculum design, taking into account students' individual, typological, psycho-physiological qualities.

With the aim to *develop pedagogical forecasting for the use of innovative educational communications on the state level* it is necessary:

– to work out a government program of professional training for adults, to implement programs for pre-professional and professional development and retraining of personnel, in such a way enhancing lifelong professional development;

– to establish consulting agencies for promotion of educational services;

– to provide informational support of Internet sites for necessary and available information about higher and vocational education (especially in distance form) and employment.

On regional levels, in our opinion, it is advisable:

– to promote and constantly upgrade educational communications, taking into consideration current and future regional needs in professionals of certain professional spheres;

– to establish special conditions for stable relations between educational establishments, businesses and organizations of informal education with the aim to identify directions for the use of educational communications;

– to encourage alternative non-government sources to invest in higher and vocational education.

On the level of educational establishments it is important:

– to implement new ideas about promotion of digital innovations in secondary, vocational and higher education;

– to develop the infrastructure of an educational establishment;

– to encourage teaching staff in higher educational establishments to update the content of subjects, curriculum, forms of classes involving innovative methods and technologies of distance education;

– to increase the effectiveness of verbal communications between participants of education process;

– to enhance digital competence of the teaching staff in higher educational establishments.

Regular upgrading of educational communications and their promotion in education process in the process of digitalization requires modernization of related legislation in view of the domestic and international experience, labour market demands, employers' preferences,

potential of educational establishments, state employment services, organizations, as well as educational needs of different segments of population.

In our further research we are planning to conduct interdisciplinary analysis of upgrading and development of educational communications in the digital society. Medial pedagogy as a sub-brunch of pedagogical science requires theoretical and methodological substantiation, as well as new didactics of vocational and higher education in the process of digitalization.

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ОСВІТНІ КОМУНІКАЦІЇ В УМОВАХ ЦИФРОВОГО СУСПІЛЬСТВА: ПРОГНОСТИЧНИЙ АСПЕКТ

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Анотація. У статті проаналізовано проблему використання освітніх комунікацій у підготовці майбутніх фахівців у вищій школі, а також перспективи їх розвитку в умовах цифрового суспільства. Методологічною основою вивчення прогностичних аспектів розвитку оновлення і використання освітніх комунікацій стало поєднання системного, аксіологічного, культурологічного й особистісно орієнтованого підходів. Мета статті – проаналізувати документальні і літературні джерела з цієї надзвичайно актуальної проблеми в умовах цифровізації суспільного життя та представити експериментальне підтвердження ефективності освітніх комунікацій в психологічному, педагогічному, соціально-економічному й технічному контексті.

Аналіз сучасних наукових теорій, філософських, психологічних, педагогічних досліджень українських та зарубіжних учених показав, що на розвиток і творче використання освітніх комунікацій у системі освіти помітно впливають такі чинники: глобалізаційні та інтегративні процеси, динамічні зміни на світових, національних, регіональних ринках праці, інтенсивне впровадження суб'єктами підприємництва інформаційного забезпечення, стрімкий розвиток комерційної діяльності й розширення сфери освітніх послуг, зокрема онлайн. Педагогічним експериментом, проведеним у Національному авіаційному університеті, підтверджено ефективність комплексного використання освітніх комунікацій у дистанційному навчанні.

У результаті наукового пошуку доведено, що розвиток, оновлення і використання освітніх комунікацій зумовлюються такими особливостями: гнучкістю та відповідністю вимогам швидкоплинного суспільного життя; випереджальним характером і орієнтацією на динамічні зміни в усіх соціально-економічних і виробничих сферах, врахуванням нових освітніх потреб різних категорій населення в умовах цифровізації ; гнучким оновленням змісту, форм, технологій і методів навчання в різних освітянських підсистемах; забезпеченням рівного доступу до якісної освіти всіх категорій населення країни.

Запропоновано підходи до педагогічного прогнозування, розвитку, оновлення і використання освітніх комунікацій на загальнодержавному, регіональному і галузевих рівнях.

З'ясовано, що вдосконалення освітніх комунікацій в умовах цифровізації потребує оновлення законодавчої і нормативно-правової бази з урахуванням прогресивних і конструктивних ідей зарубіжного і вітчизняного досвіду, зрослих потреб роботодавців, закладів освіти різних типів і форм власності, державної служби зайнятості, а також освітніх потреб різних категорій населення.

Ключові слова: інформатизація суспільства; тенденції; освітні комунікації; педагогічне прогнозування; педагогічний експеримент; цифровізація освітнього процесу.

ПРОГНОСТИЧЕСКИЙ АСПЕКТ ОБРАЗОВАТЕЛЬНЫХ КОММУНИКАЦИЙ В УСЛОВИЯХ ЦИФРОВОГО ОБЩЕСТВА

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Аннотация. В статье проанализирована проблема использования образовательных коммуникаций в подготовке будущих специалистов в высшей школе, а также перспективы их развития в условиях цифрового общества. Методологической основой изучения прогностических аспектов развития обновления и использования образовательных коммуникаций является сочетание системного, аксиологического, культурологического и личностно ориентированного подходов. Цель статьи – проанализировать документальные и литературные источники по этой чрезвычайно актуальной проблеме в условиях цифровизации общественной жизни и представить экспериментальное подтверждение

эффективности образовательных коммуникаций в психологическом, педагогическом, социально-экономическом и техническом контексте. Анализ современных научных теорий, философских, психологических, педагогических исследований украинских и зарубежных ученых показал, что на развитие и творческое использование образовательных коммуникаций в системе образования оказывают заметное влияние такие факторы: глобализационные и интеграционные процессы, динамические изменения на мировых, национальных, региональных рынках труда, интенсивное внедрение субъектами предпринимательства информационного обеспечения, стремительное развитие коммерческой деятельности и расширение сферы образовательных услуг, в том числе онлайн. Педагогическим экспериментом, проведенным в Национальном авиационном университете, подтверждена эффективность комплексного использования образовательных коммуникаций в дистанционном обучении. В результате научного поиска доказано, что развитие, обновление и использование образовательных коммуникаций предопределяется такими особенностями: гибкостью и соответствием быстротекущей общественной жизни; опережающим характером и ориентацией на динамические изменения во всех социально-экономических и производственных сферах, учетом новых образовательных потребностей разных категорий населения в условиях цифровизации. При использовании новейших образовательных коммуникаций целесообразно ориентироваться на гибкое обновление содержания, форм, технологий и методов обучения в разных образовательных подсистемах; образовательные коммуникации должны способствовать обеспечению равного доступа к качественному образованию всех категорий населения страны. Предложены подходы к педагогическому прогнозированию, развитию, обновлению и использованию образовательных коммуникаций на общегосударственном, региональном и отраслевых уровнях. Выяснено, что усовершенствование образовательных коммуникаций в условиях цифровизации нуждается в обновлении законодательной и нормативно правовой базы с учетом прогрессивных и конструктивных идей зарубежного и отечественного опыта, а также возросших потребностей работодателей, заведений образования разных типов и форм собственности, государственной службы занятости, а также образовательных потребностей разных категорий населения.

Ключевые слова: информатизация общества, тенденции; образовательные коммуникации; педагогическое прогнозирование; педагогический эксперимент; цифровизация образовательного процесса.