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WSPARCIE TECHNOLOGICZNE RÓŻNYCH KIERUNKÓW EDUKACJI DOROSŁYCH WE WSPÓŁCZESNYCH WARUNKACH ROZWOJU SPOŁECZNEGO

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Adnotacja. W artykule zbadano i przeanalizowano wsparcie technologiczne różnych kierunków edukacji dorosłych we współczesnych warunkach rozwoju społecznego. Autor uzasadnia podstawowe znaczenie technologicznego zabezpieczenia edukacji dorosłych w kontekście informatyzacji edukacji i społeczeństwa. Zidentyfikowano zasadniczo nowe możliwości stworzenia wsparcia informacyjno-technologicznego dla przygotowania dorosłych studentów, które zachęciłyby ich do podnoszenia kwalifikacji i samodoskonalenia zawodowego przez całe życie. Wykorzystanie technologii informatycznych w procesie uczenia się dorosłych studentów umożliwia zmianę ram przestrzennych i czasowych interakcji, indywidualizację procesu uczenia się, dostosowanie do cech każdego dorosłego studenta, a także kształtowanie procesu uczenia się w trybie dialogu. Kształcenie na odległość jest jedną z nowoczesnych i skutecznych form nauczania dorosłych studentów. Co więcej, kształcenie na odległość w swej istocie odpowiada humanistycznemu paradygmatowi samej edukacji, ponieważ odpowiada na potrzeby samorozwoju zawodowego i duchowego zarówno nauczyciela, jak i dorosłego studenta.

Słowa kluczowe: wsparcie technologiczne, rozwój społeczny, edukacja dorosłych, informatyzacja oświaty, kształcenie na odległość.

TECHNOLOGICAL SUPPORT OF DIFFERENT DIRECTIONS OF ADULT EDUCATION IN MODERN CONDITIONS OF SOCIAL DEVELOPMENT

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Abstract. The article analyses the application of technological support of different directions of adult education in modern conditions of social development. The author determines the main role of the technological support of different directions of adult education in the context of education and society informatization. Also, the article defines new possibilities for creation of information and technological support of adult pupils' training in higher education. It would stimulate adult students to increase qualification and professional self-improvement during the whole life. The using of the information technologies in the educational process of adult students allows to change the space and time limits of interaction, to personalize the educational process, to adapt to the peculiarities of each adult student, and also to form the process of studying in dialogue mode. The distance learning is one of the modern and effective forms of adult learning. Moreover, distance learning in its essence corresponds to the humanistic paradigm of education itself, because it meets the needs of professional and spiritual self-development of the teacher.

Key words: technological support, social development, adult education, education informatization, distance learning.

ТЕХНОЛОГІЧНЕ ЗАБЕЗПЕЧЕННЯ РІЗНИХ НАПРЯМІВ ОСВІТИ ДОРΟΣЛИХ В СУЧАСНИХ УМОВАХ СУСПІЛЬНОГО РОЗВИТКУ

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Анотація. У статті досліджено та проаналізовано технологічне забезпечення різних напрямів освіти дорослих в сучасних умовах суспільного розвитку. Автором обґрунтовано основне значення технологічного забезпе-

чення освіти дорослих в контексті інформатизації освіти та суспільства. Визначено принципово нові можливості для створення інформаційно-технологічного забезпечення підготовки дорослих студентів, які їх стимулювали б до підвищення кваліфікації та професійного самовдосконалення протягом всього життя. Використання інформаційних технологій у навчальному процесі дорослих студентів дозволяють змінювати просторові та часові межі взаємодії, індивідуалізувати навчальний процес, адаптувати до особливостей кожного дорослого студента, а також сформуванню процесу навчання в режимі діалогу. Дистанційна форма навчання являється однією із сучасних та ефективних форм навчання дорослих учнів. Більше того дистанційне навчання за своєю сутністю відповідає гуманістичній парадигмі самої освіти, оскільки відповідає потребам професійного та духовного саморозвитку як вчителя так і дорослого студента.

Ключові слова: технологічне забезпечення, суспільний розвиток, освіта дорослих, інформатизація освіти, дистанційне навчання.

Introduction. The world process of transition to information society, as well as social, economic and political changes accelerate the process of reforming the system of higher education, in which pedagogical education takes rather special place. At the same time, this feature is that pedagogical education is directly related to the social, economic and political state of society, provides the appropriate level of education, determines the effectiveness of professional activity and development of the nation.

The education system that is satisfied by such requirements should include the application of innovative technologies that would ensure the appropriate level of mobility of the specialist in the field of knowledge and skills. This issue is one of the main in the development of the higher education at the present stage and was reflected in the UNESCO program “Education for the 21st century” and marked the changes of the concept of Lifelong education.

Analysis of relevant research and publications. Theoretical and methodological principles of the work were monographs and articles by Ukrainian and foreign scientists. Different aspects of technological support of different directions of adult education were studied by Ukrainian and foreign researches Bikov, 2009; Kremen, 2003; Semichenko, 2000; El-Mowafy, 2013; Holmberg, 1994; Keegan, 1993; Moore, 1991; Peters, 1998; Tough, 1971; Wedemeyer, 1971. The main attention of scientists is paid to the essence and meaning of the concept of technological support of different directions of adult education in modern conditions of social development. The researchers distinguish important features and characteristics of modern directions and development of adult education in Ukraine, and also pay attention to the using of the information technologies in the educational process of adult students.

The purpose of the article is to study and analyze technological support of different directions of adult education in modern conditions of social development.

Main part. Ukraine’s accession to the Bologna Declaration and the process of formation of the zone of European higher Education requires the development of the modern and new information and technology supporting for adult students’ training at higher educational institutions.

In the modern conditions of education informatization the pedagogical spectrum is expanded and updated, as well as new possibilities for creation of information and technological support of adult pupils’ training in higher education. It would stimulate adult students to increase qualification and professional self-improvement during the whole life.

However, the modern informatization of pedagogical education provides achievement of such strategic goals as:

- Increasing of all kinds of educational activity effectiveness on the basis of using the information and communication technologies.
- Improving the quality of adult students’ training with a new type of thinking in accordance with the requirements of the modern information society.

The using of the information technologies in the educational process of adult students allows to change the space and time limits of interaction, to personalize the educational process, to adapt to the peculiarities of each adult student, and also to form the process of studying in dialogue mode.

The process of social, economic, political and cultural changes that accompany modern society, as well as the transition to information society and globalization processes explain the general crisis of the education system. The essence of which is connected with the inadequacy of the education content and the level of development of the educational system in accordance with the requirements of the information society. It should also be noted that modern information society is characterized by high level of information technologies, developed infrastructures that provide information resources formation and access to information, fundamental changes in social structures, expansion of information activity.

In such conditions, informatization means the changes of the entire educational system with its orientation toward a new and modern information culture, increasing of the access to high-quality education by means of distance education development and tools of informational support of the educational process by modern information technologies.

At the same time, the appearance of distance learning can be explained by the fact that conservatism of traditional universities has become a braking factor in the system of specialists’ training in conditions of intensive changes in our modern society.

At the present stage of social development distance learning has been reflected in Ukraine’s policy of the public information, such as: “The Law of Ukraine on the National Program of Informatization” (2001) and “The Law

of Ukraine on higher Education” (2014). These legislative documents provide the measures that aimed at forming adult education as a carrier of effective forms of interaction with subjects of the pedagogical process.

The development of the information society and the transition to the concept of lifelong education lead to the changes in the paradigm of the education process in general. In particular, each paradigm is formed depending on the element that is dominant in the system of basic parameters of education as social and cultural phenomenon. The following items may be:

- The idea of the system of knowledge, skills that are necessary for adult students in a specific historical epoch.
- Understanding the type of culture and ways of personal development in the process of its assimilation.
- Understanding the values of education in the society.
- The idea of the role of the teacher as a carrier of knowledge and culture in the educational space.
- Place of adult student in the system of education.

The results of the analysis of scientific publications show that the classical educational paradigm was oriented on formation of effective functioning of the person in the collective, on production, in society. Therefore, the invariability of forms of study and quantitative composition of classes at school or groups in higher educational institutions lead to the fact that the desire to improve the content or methodology of teaching specific educational disciplines can not significantly influence the level of their mastering by the majority of adult pupils.

The distance learning is one of the modern and effective forms of adult learning, which is conditioned by the following factors:

- the process of computerization of educational institutions;
- growth of the volume of independent work of adult students;
- advantages of distance learning: flexibility in choosing the place and time of study, possibility of various presentation of information by means of multimedia, growth of active role of the student in study and others.

It is also necessary to take into account the peculiarities of the system of adult education training. Such system can be observed in several dimensions: as a process of professional development of personality; as a goal and result of activity of higher educational institution and in the context of attraction of the student to educational activity (Semichenko, 2000). It is characterized as dynamic, flexible, manageable, orderly and internal harmony of components.

Moreover, distance learning in its essence corresponds to the humanistic paradigm of education itself, because it meets the needs of professional and spiritual self-development of the teacher. The Humanist paradigm appeals to the process of education, to individualization and differentiation, to the teaching process and the process of creativity (Kremen, 2003).

The theory of distance learning, development of which falls on 80-th years of XX century and the beginning of XXI century, represents branch of scientific knowledge, complex of views, ideas, directed on realization and explanation of educational process in system of distance learning. We consider the classification of the theory of distance learning can be reasonable enough.

The results of the analysis of scientific publications show the main components of the distance learning theory, such as:

- The theory of industrialization, which investigates the influence of technologies on the process of education (O. Pithers, M. Campyon, R. Edvards, N. Farnes).
- Theory of interaction and communication, which emphasize the role of pedagogical technologies in achievement of efficiency and information and technological support of the education process.
- Theory of autonomy, which is based on the uncovering of the autonomy of adult students at different stages of study (Keegan, 1993).

Moreover, some researches define the distance learning as the product of industrial era and determine three periods of its development, each of which has certain forms of organization of educational activity. In particular, in a post-industrial society, the traditional industrial model of distance learning no longer meets the needs of adult students with their specific expectations and values. Such situation requires the development of new models of distance learning that would combine long-term group work, new means of receiving information for self-education and wide contacts with means of telecommunications. The basis of the new models of distance learning is the independent management of the studying process and self-study of the student. Thus, the activity of the student will be more autonomous (Peters, 1998).

John Bahat (2019) focused his attention on the organization of communication of adult student and teacher and the role of control system by the teacher. The researcher formed two models of interaction between the teacher and adult student, such as: rigid and flexible. In particular, the rigid model distinguishes the strict control of teacher over the process of teaching, the priority of the educational material, insufficient attention to the dialogue between the teacher and the adult students.

On the other hand, flexible model is characterized by less strict control over the process of teaching, priority of the dialogue between the adult students and the teacher. The functions of the teacher remain unchanged in the two models, such as help in organization of the cognitive activity of adult students and support of their motivation to the educational process.

The understanding of learning as a process of getting knowledge by an adult student is the essence of the theory of Swedish scientist Bohr Holmberg (1994). His main contribution to the theory of distance education is the substantiation of the empirical theory of distance learning, the provision on the solution of the problem

of “loneliness” of the student in the process of distance learning through the organization of guided didactic communication, which is directed on creation of illusion of teaching presence.

B. Holmberg (1994) formulated six components of organizing such communication, among them:

1. The feeling of personal interaction between teacher and adult student helps to form the pleasure of learning and increase motivation. The feeling can be enhanced by well-prepared materials for study and bilateral communication at a distance.

2. Intellectual satisfaction and motivation contribute to achievement of the set goals of training and use of appropriate forms and methods.

3. Atmosphere and friendly conversation promote creation of a feeling of real and effective communication of study.

4. Information transmitted in the process of conversation in an unofficial form is easily learned and remembered by adult students.

5. The concept of “speaking communication” can be applied effectively enough with different technologies of distance learning.

6. Effectiveness planning and management are necessary for the organization of successful training (Holmberg, 1994).

The theory of Charles Wedemeyer (1971) has the important role in substantiating theoretical principles of distance learning. Thus, the American scientist has defined the main characteristics of such training:

1. Communication, stimulus, self-determination of aims and types of educational activity.

2. Distributed the tasks and correspondence for the results of the educational process for teachers and adult students and also established its general components: teacher, adult students, communication system or process of study, program of study.

At the same time, the researcher proposed to consider separate teaching and learning processes and separate the conditions of independent work of adult students:

- The teacher and adult student work at a distance system.

- The process of studying is carried out by means of written communication or other kind of activity of adult students.

- The process of training is individual.

- The process of studying and mastering the educational program are based on the activity of adult students.

- The process of learning takes place in the personal environment of adult students.

- Adult students are responsible for the pace of study according to their personal and individual characteristics (Wedemeyer, 1971).

Developing the theory of transactive distance, M. Moore took into account the conclusions of representatives of humanistic psychology, in particular K. Rogers and Alan Tafa (2017), on the idea of educational autonomy, according to which those adult students who study are well developed to devise their own curriculum and to find sources for studying and evaluating their results (Tough, 1971).

In addition, transaction in distance learning is the interaction of teacher and adult students in environments characterized by spatial separation. It interprets geographical distance as a rather special characteristic of distance learning, taking into account different pedagogical approaches. First of all, the transaction distance is the pedagogical sphere rather than a geographical category, which requires special organization and methods of teaching and provides a connection between three variables: structure, dialogue, autonomy (Moore, 1991).

The creator of the theory of distance learning M. Moore (1973) defined distance learning as the system of learning methods, according to which teaching is carried out separately from educational and learning activity of adult students. So that communication between teacher and student can be promoted by printed, electronic, mechanical and other means (Moore, 1973). So, he determined the following features of distance learning, such as:

- connection of the teaching process;

- using of the technical means of training process;

- possibilities of two-way communication.

Also, the results of the analysis of scientific publications show that in modern society of the practice of distance learning the education system can applying six models of distance learning. These models are based on the use of both traditional and new information technologies, including:

1. Model 1. Study by type of an exsternation. The process of studying is oriented on the requirements of higher and comprehensive school and is intended for those who can not attend classes due to various circumstances. This is actually the out-of-school form of study by an examinee. This model provides expert advice, testing, and independent work.

2. Model 2. University study. This model provides a system of education for adult students who study remotely. Training is carried out on the basis of information and communication technologies. At the same time, educational environments of separate universities are created.

3. Model 3. The training is based on cooperation of several educational institutions. This cooperation allows to create more qualitative and not very expensive educational environment.

4. Model 4. The training is based on specialized educational institutions and provided as specially created for distance learning and oriented on the use of multimedia technologies. Their competences include assessment and certification of those who study. The largest institutes of this type are Open University in the UK and National Technical University in the USA (Colorado).

5. Model 5. Autonomous educational systems. The training is carried out by means of television and radio programs, etc. This model is common in US Universities.

6. Model 6. Informal, integrated distance learning based on multimedia applications. These are self-education programs and are aimed at teaching adults, for those people who, due to various reasons, could not get education before. Such projects may be part of an official educational program or they may be specifically targeted at the specific educational purpose.

It should be noted that, the basis of this classification was the organization of distance learning on the synchronicity of interaction of the educational process. In this context, attention should be paid to the British and American models of distance education. In particular, if the British model is based on case-based technologies (the Open University of the UK), the American model is mostly oriented on the use of network technologies.

Monitoring the peculiarities of distance learning using we should determine its basic functions according to the way of activity and the leading functions of the process of learning. It can allow to solve problems of interactive communication of subjects of educational process, to carry out constant control over level of mastering of educational material, to provide students with access to various information stored on servers, to create the individual educational trajectory.

The interrelation of functions of traditional and distance learning allows to note the expediency of harmonious combination in preparation of adult study of traditional and distance learning, which has found reflection in model of mixed education.

In particular, according to the different scientists, the purpose of mixed training is the commitment to combine the advantages of full-time teaching and e-learning, which is carried out with the help of educational resources in such a way as to avoid disadvantages of both types of education (El-Mowafy, 2013).

According to the analyzed sources, the technologies of distance learning can be divided into three groups:

1. Technologies of presentation of educational information.
2. Technologies of educational information transfer.
3. Technologies of saving and processing of educational information.

It should also be noted that the implementation of educational programs will especially update the technologies of educational information transfer, which provide the process of education and its organization.

Also, the studies have shown that for effective educational system we can use different toolbox, such as;

- case-technologies based on the use of case sets, audio-visual and multimedia educational-methodical materials;
- network technologies based on the use of Internet networks and technologies that use the capabilities of local and global computing networks to provide adult students with educational and methodological materials.

In our opinion the most promising technologies are network technologies and the advantages of which are:

- Interactive. This allows quick adaptation of educational materials for each adult student according to feedback results.
- Efficiency. Provides for the transfer and remote use of any information, as well as virtually unlimited access to any information.
- Possibility to organize a dialogue between adult students and teacher in on-line mode.

The leading role of network technologies is to provide the effective educational dialogue. Thus, education is a dialogue process in its essence, in contrast to self-study. In traditional study the possibility of dialogue is determined by the form of the process of educational process organization, the presence of the teacher and adult students in one place. Then, in the remote study the dialogue is organized through the network technologies of two types, namely: on-line and off-line. In particular, on-line should be considered as technologies that allow to exchange information in a real time mode. Among them are the chat and forum, which allow to exchange text messages via the Internet in real time both between the two interlocutors, and to organize collective conversations, to conduct seminars and group consultations.

At the same time, the using of off-line technologies enables to save the receipt of messages on the PC and to work asynchronously, that is, in a convenient time in unreal scale of time. Such technologies include e-mail, which can be used to transfer various files, documents, databases, obtaining the necessary educational information from the Internet, for consultation with the teacher, and also for cooperation with other adult students. In addition, the use of e-mail can be used in conducting the seminar not only on the traditional scheme, but also on the scheme of the seminar-mutual education and seminar-discussion. It is also advisable to use e-mail to conduct an e-lecture, when the text of the lecture is sent via e-mail, the dates of the recommended literature etc., and then the consultation process is carried out using e-mail.

The studies of pedagogical literature showed that the modern distance learning is based on the use of:

- Web pages. The using of documents that have a unique URL, usually organized as hypertext with text, graphics, sounds, video or animation included, and so on.
- Web sites. Aggregate web pages that are combined in a sense, navigate and physically located on the same web server.
- Blogs. The web magazine or event diary, such as a variety of web sites whose main content consists of regularly added entries, contains text, images, or multimedia, online diary with comments and more.
- Web-forums, which act as an instrument for organizing communication in the Internet-site.
- Chat. The page where you can communicate with other adult students in real time.

- Skype. The computer program that allows you to make free calls over the Internet, establish conference, video, and send text messages and other files.
- Video and teleconferencing. The interactive tools that include audio, video, computer, and communications technologies for real-time communication between geographically remote speakers.

Conclusions. The conducted researches show that the platform for organizing the process of education on such technology is the system of distance education. It gives the opportunity not only to place educational materials in electronic form, but also to develop author's electronic courses, various educational materials in which formed blocks with hypertext and hyperlinks. At the same time, distance learning system provides the opportunity to authorize adult students, and the teacher to control the degree of mastering by students of educational material by means of the use of test systems.

Moreover, the appearance and application of cloud technologies have actualized the creation of a cloud-based educational and scientific environment of a pedagogical institution, which should be considered as an informational and communicative environment. This environment should be considered as the environment of educational institution in which separate didactic functions, as well as some fundamental important functions of realization of scientific researches provide reasonable coordinated and integrated use of services of cloud technologies.

Cloud services are used to make electronic educational resources, which make up rather substantial content of the cloud-oriented environment, provide processes of creation and supply of educational services available to the user. This creates a personalized computer-integrated learning environment as the open computer-integrated educational environment of pedagogical systems, which provides configuration of infrastructure, including virtual, for individual information-communication, information-resource and operational-process needs of the participants of the educational process.

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