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DISTANCE LEARNING THROUGH EYES OF COACHES: FOREIGN AND UKRANIAN EXPERIENCE

KSZTAŁCENIE NA ODLEGŁOŚĆ W SZKOLENIU STUDENTÓW: DOŚWIADCZENIE ZAGRANICZNE I UKRAIŃSKIE

ДИСТАНЦІЙНЕ НАВЧАННЯ В ПІДГОТОВЦІ СТУДЕНТІВ: ЗАРУБІЖНИЙ ТА УКРАЇНСЬКИЙ ДОСВІД

With spreading of new informational and technical means for delivery of educational materials, first of all, with spreading of Internet at higher educational institutions of various types of professional purposes, there were prerequisites for emergence and development of a new direction – distance learning that is based on computer and telecommunication technologies of transfer and acquisition of knowledge, skills and competences.

Over the last decades scientific and methodological foundations of distance learning are developing rapidly. To the issues on the development of distance learning were devoted the works of lots of scientists, such as: R. Delling, G. Ramble, D. Kigan, M. Moor, A. Klark, M. Tompson, and others.

Analysis of the state of the issue of scientific development of distance learning in the professional preparation of students showed that in spite of sole progress this pedagogical issue requires further researches because of the lack of standardized conception of the subject; lack of developed theories of distance learning in general, as well as the distance learning in professional preparation

of future educationists, particularly in Ukraine; lack of analysis of specific foreign higher educational institutions with distance learning which experience can be used in Ukraine; lack of integrating work on the development of distance learning and lack of basic researches on the issue in our country, its phases of development, evolution of foreign patterns; lack of conceptual approaches to the management of distance learning in home higher educational institutions; lack of socio-economic grounds of a new form of learning or its elements for each educational institution; lack of technologies of individual distance learning in higher educational institutions, that is a necessary condition for its interactivity; lack of approaches to implementation of distance learning forms into the professional training of student youth.

Distance learning is a modern achievement of science, technology and pedagogy. In high quality conditions distance learning should help higher education be available to a wide range of people, be a place where these people could learn all their lives. Distance learning should meet their personal needs and practically realize their personal way in learning.

Distance learning implemented by pedagogical, technical and medical universities causes the necessity to solve a number of theoretical tasks, first of all, those ones which are specific to the form of training of students: pedagogical and didactic features, analysis, comprehension and adaptation of the experience of the developed countries in the development of new field of pedagogical knowledge – engineering pedagogy, revision of existing high principles that will ensure quality of distance learning in the context and comprehension with traditional forms of learning.

Such general scientific approaches were followed during the experiments: novelty and relevance; compliance with public policy priorities and thematic areas of research and scientific and technical development; practical utility, possibility of implementing the provided recommendations and conclusions.

The research uses such methods as theoretical analysis of scientific sources, comparison and generalization of scientific information on the problem of studying. Experimental method is the organization of a online survey of coaches of higher education institution in Ukraine on the topic "Distance learning through the eyes of coaches in higher education institutions in the conditions of limited education space in Ukraine".

General research (online survey) of coaches and students in higher education institutions in Ukraine as to distance learning in the conditions of limited education space was carried out on the national level by the State service of education quality of Ukraine from April 23 to May 5, 2020. Within the framework

of our experiment, a representative sample of 606 respondents (coaches) was selected, who represented with their consent various higher education institutions of Ukraine. For online survey of the coaches were proposed four questions:

1. "What is used for providing distance learning in the conditions of limited education space in your higher education institution?";
2. "Are there any online resources for distance learning used in the conditions of limited education space?";
3. "What are the difficulties for your implementation of distance learning in the conditions of limited education space?"
4. "What needs do you have for your training in the conditions of limited education space?".

Distance learning is wildly used overseas, particularly in the USA, Japan, Australia and West-European states. In recent years this form of learning has been introduced actively in Ukraine and in the Baltic states. Distance learning patterns in the countries above are different from each other and they are formed taking into account their economical, political and socio-cultural features.

The history of the development of distance learning began in 1840 when an English teacher Isaak Pitman suggested that the students of his country should learn shorthand with mail, becoming the author of the fist course of distance learning. Later, in 70-s in XIX the teacher of Berlin university and Ch. Tussen a member of the British organization of modern languages G. Langensheidt used mail for delivering tests and other educational materials to the students. It was the first use of technologies of distance learning at the level of personal initiatives of some teachers.

This form of learning gained its official status only in 1891 in the USA when at the University of Chicago the famous teacher William Reiny Harper founded the Department of Distance learning. Later in 1906 distance learning by mail was implemented at the University of Wisconsin. Other universities took that experience and at the beginning of XX that form of learning began to spread in Ukraine.

Modern foreign sources are presenting numerous variants of classification of stages of distance learning development in the USA. Their main features are: social and economical development of the state, social character of distance learning, mass use, availability and development of qualitatively new institutional and non-institutional forms. According to our research, a great number of scientists link the development of distance learning, first of all, with the generation of information and communication technologies. Relevant to the context, there is a study of the leading American theorist Garrison who collaborating with

a Canadian scientist Nipper identified three stages as "generation of distance learning". There are some features of each stage.

According to the authors, printed material sent by mail prevailed in the technologies in distance learning of the first generation. Such a system of learning was in the early XIX century and foresaw correspondence as a means of communication between the participants in the educational process.

The next generation of distance learning is associated with foundation of the Open university of Great Britain (1969). The feature of that stage is the widespread use of the multimedia approach to the learning process. It was the Open university that has pioneered the development of the quality teaching materials for distance learning, in particular, and the use of a comprehensive approach to the learning process that involved the availability of one-side and two-side communication between students and teacher.

The leading feature of the third generation, the chronological framework of which is in 80-s, is the development of interactive, electronic technologies that have contributed to computerization of distance learning. Use of computer networks has enriched the educational process with a new type of communication – student-student and new communication channels – audio and video conferences, e-mail, discussion forums, etc (Garrison, 1985; Nipper, 1989).

According to the generation of information and communication technologies, an American theorist G. Taylor in his research emphasizes the availably of the fourth stage in the development of distance learning. This period covers 90-s, and it is characterized by emergence and active implementation in the teaching process the technologies World Wide Web that allow to achieve fast and convenient communication with the information database.

The last stage in the classification that we analyzed falls on the 1990s. It is associated with a new technical "outburst" in the development of digital communication, Internet and the progress of computer technologies that begin to be actively used in the implementation of remote learning. According to the results of the research of Perrins, Dean, McIsaac, Buckland, nowadays in the USA a common way of organizing of distance learning in higher education is the use of computer telecommunication technologies in e-mail mode and Internet. In this context we should refer to static data of the National Report of the US Council of Higher Education Accreditation for 1999 which indicate that at present the number of university courses that relied solely on Internet resources was 39%; the number of American educational institutions that were using e-mail in distance learning was 54% (Council for Higher Education Accreditation, 2001).

Thus, based on the analysis of the available literature it can be stated that in its development distance learning has passed several stages: from student-trainer interaction to integration in the process of this interaction of radio, telephone, computer, satellite, video and cable communication.

Despite having experience in the development of distance learning in the world for more than ten years, because of its versatility and scale, as a phenomenon of wide variety of education services and forms of organization (or patterns) in large national and international centers of distance learning, we think the world educational community has not been made a single definition of this concept. Home and foreign experts agree unanimously that the term "distance learning" has not been fully enshrined in English-language literature.

American expert in distance learning Thomas A. Clark notes that the term "distance learning" is rather vague, in particular because there are too many types and programs of training under this category. Moreover, nowadays there is a number of synonyms and terms alike in the meaning, such as "distance education", "distance learning", "distant learning", "remote learning", "open learning", "online education", "open university", "virtual university" (Verduin & Clark, 1991). In our research we show a great number of variants of definition belonging to the leading theorists, educational organizations, education institutions in the USA.

The issue of the availability of such key categories in our definition as physical distances between participants of the educational process and communication technologies that contribute to providing two-way communication and eliminating "distance" between the student and the trainer was reflected in the works of such famous American theorists as B. Wills, T. Clark, R. Verduin (Verduin & Clark, 1991). But the Distance Education and Training Council – DECT, interprets that definition both as registration and training in educational institution, that provide basic materials developed in a definite sequence and definitions for self-study.

As we see from the definitions above, the features of the distance learning are: space-time distance of the learning process; the use of various educational information exchange facilities, providing two-way communication between the participants of the learning process. At the same time we note that the comparison of the above values indicates the availability of significant differences in the substantive aspect of the given definition.

We believe that the features of interpretation of the definition of our study, in particular, its semantic ambiguity are related to the socio-economic development of the country and the level of the development of pedagogical education over a certain historical period.

Summaries of existing approaches to defining the concept of distance learning are presented in Table 1.

Table 1. Definitions "distance learning/education" in scientific literature

Association Distance learning USA (90-s)	Acquiring of knowledge and skills through information and training, including the use of technologies and online learning.
American Councilon education (ACE)	Distance learning is a system and process of connecting students with distributed educational resources.
Glossary of the National Statistic Center of Education of the Department of Education of the USA	The term "distance learning" means a process of education characterized by the separation in time or location of the trainer and the student.
American Council of Distance learning and Education (DETC)	Distance learning (online learning) is registration and learning in an education institution that provides education al materials in sequence and logic for self-study by a student.
Open university	Distance learning is a qualitatively new progressive type of learning that emerged in the last third of the 20th century, thanks to the technological opportunities that emerged as a result of the information revolution based on the idea of Open education.
Education development concept in Ukraine	Distance learning is a form of training, equivalent to full-time, evening, correspondence and externally implemented mainly by the technologies of distance learning.

Thus, distance learning/education is a system of training of the specialists of the 20-th century, characterized by high professionalism which strives for cooperation, self-affirmation and high level of communication with colleagues. Distance learning is characterized by a sharp increase in socially significant motives: business, cognitive, cooperation, self-realization and development, self-affirmation and communication due to the use of open and computer-based training and modern means of communication.

Study of foreign scientific sources proves to be the leader among the higher education institutions in the USA which use actively "online" technology is The University of Phoenix Online. Founded in 1976, this educational institution was the first accredited university to begin pursuing degree programs through the use of the Internet in 1989. Among a great number of programs and courses this institution, in particular, the College of Pedagogy which is based at this university specializes in the field of "online" technologies. Along with the presentation of educational material on CDs as a basic electronic textbook containing a large

amount of information, the University widely applies synchronous and virtual meetings, group learning activities, compatible writing based on the use of the Web. A wide variety of "online" programs in the field of teacher training are offered by a number of pedagogical institutions, in particular, Arkansas University, Texas University, North Carolina University, New Southeastern University, Montana University, Pedagogical College of Maryland university, Western Governors University, and others (Daniels, 2019).

Resent scientific studies suggest that today in the United States under the condition of the introduction of the distance education in the context of coach training the network of the Internet is especially popular in the world (World Wide Web–WWW) and "online" technology that allows the user to access quickly the necessary information. Among the main forms of distance learning in the USA the most common ones are consulting and correspondence trainings, "case" technology, telecommunication trainings, regulated self-study and network learning. Gradual mastering of educational material provides three levels of its mastering (basic, advanced, creative) and promotes updating of acquired knowledge elimination of gaps in knowledge.

The governments of the most European countries adopted documents aimed for supporting the implementation of information and communication technologies (ICT) in primary schools in order to prepare individuals for live in the information society. It stimulates the development of new concepts and approaches in the field of study and use of ICT in various fields of activity for all citizens. There are three main areas of use and implementation of ICT in the European countries: training coaches on the use of ICT, development and distribution of education resources, development of technological infrastructure.

We emphasize that in the use of distance learning the Open University in Great Britain became the first. It was founded in 1969 and it was a new type of an educational institution and the leader in distance education. In 1996 its seven departments had about 215000 students. Universities in 21 countries use the Open University curricula. The Institute of Education of London University is also involved in the distribution of distance education and provides high standards of training. There are also pre-graduate and post-graduate courses. Nowadays, the forms of distance learning are practiced in many countries of Europe and provide high level education.

European Association of Universities with distance learning (EAUDL) was founded in January in 1987 in order to accelerate and support the formation of an European network of distance learning at the highest level that contributed to establishing the European Open university on the basis of the Network of Euro-

pean Open universities (NEOU). The organization includes 17 Open universities and departments in universities of 15 countries.

In recent decades associations of distance learning have been formed in higher education institutions in East Germany including Berlin, in North Rhine-Westphalia and Rhineland-Palatinate Ern with Hesse and Saarland. The Central Body of Distance education (ZFU) roughly counted that in 1995 in the distance education programs took part 150 000 students (Unites States Distance Learning Association).

Among the other most known in the open distance education we will list such institutions as: the Open university of the Netherlands; the Center of open learning in Spain; the Hagen Distance university in Germany; Canadian open university; the Israeli Open university, etc.

Distance education in Ukraine began to develop much later than in the countries of the Westen Europe and carried out when the level of awareness of the Ukrainian society was much lower and not many education institutions were equipped with computer s and there was a lack of special methods of distance learning Theoretical, practical and social aspects of distance education are developed not enough in our country. The number of scientific and education institutions which are developing or using actively courses of distance learning so far is not enough either. As for the structures that organize distance learning in higher education institutions we can identify their 4 main ones:

1. Addition to traditional university education. Education institutions offer in the framework of the distance education some disciplines or even entire programs.
2. Consortia. There are various agreements under which several colleges (universities) are united through a state or regional network in order to provide the distance learning courses to those who wish it.
3. Agreements. It treats of various agreements between higher education institutions, coaches and providers concerning rendering of educational services with distance learning.
4. Virtual universities. This type of universities includes higher institutions that provide most of their programs with the help of the modern information and communication technologies (ICT).

Thus, distance learning in Ukraine requires further development, taking into account foreign experience as it designed to contribute to the solution of such socially significant problems as: improving the level of education of the society and the quality of education; realization of the needs of the population in educational services; meeting the needs of the country in well-trained spe-

cialists; increasing the social and professional mobility of the population, its enterprise and social activity, the level of self-awareness; expansion of the outlook; preservation and material potentials that have been accumulated by the Ukrainian higher education; development of a single educational space with in the country, the entire world community which aims are to ensure the possibility of education at any point in the educational space.

The purpose of the experimental study was coaches' evaluation of the distance learning implementation in higher education institutions and raising the professional level of coaches during the introduction of long-term quarantine events.

The purpose of the experimental research was: to determine how coaches organize distance learning, how its advantages were realized, what implements were used by the coaches and how it was efficiently and flexibly; how much time they used to improve their own skills; if there was an opportunity to share their experience with the colleague.

While training the students in the conditions of limited education space the coaches used the basis of LMS Moodle and cloud technologies.

On the basis of LMS Moodle our coaches have created and implemented the following steps: an input forum for self-presentation, discussion of discipline issues, expectations from training and others. Small messages with obligatory mutual comment which solve the problem of lack of live communication, and allow to connect the majority of students to the discussion at the initial stage; incoming and outgoing questionnaire of students which allow the coach to make a portrait of the group, identify problems and questions to initiate communication; forming a polite atmosphere by discussing the rules of network etiquette. LMS Moodle system provides the user with the creation of a distance learning course which becomes better the more people use it, filling it and repeatedly editing the information.

Cloud technologies are one of the leading trends in global information technology. According to the analysts of Gartner Group, cloud computing is considered to be the most promising strategic technology of the future, the migration of the most information technologies to the clouds is forecast for 5–7 years (Bykov, 2012).

The concept of cloud technologies is distributed data processing where applications, computer resources and power are provided to the user as an Internet-service. Cloud technology is a data center with its own infrastructure. The main advantage of using cloud is hiding of complex infrastructure from the end users which directly ensures the availability of information and means of processing

(software). It allows users to focus on performing their functional responsibilities without thinking about the nuances of information processing technology.

Accordingly, cloud–based electronic educational resources in the process of studying disciplines can be taken as a type of electronic educational resources used in the cloud model of access, namely – educational, scientific, informational, reference materials and tools that are developed in electronic form used by the cloud model access, reproduced with the help of appropriate electronic digital technical means and necessary for the effective organization of the educational process, in part with regard to its filling with high-quality educational and methodological materials. Then the composition of cloud resources includes both the relevant ICT (software component) and educational data (information component).

Results of the online survey of coaches are as follows. The respondents while answering the question "What is used in your higher education institution for distance learning in the situations of limited education space?" were proposed to choose one or more answers. Most rated respondents suggest and use such instruments for the organization of distance learning as: Viber – 88,2%; Site of the higher education institution – 62,7%; Google Classroom – 45,5%; Skype – 37,7%; Zoom – 28,5%; Telegram – 20,9%. Among others the respondents indicated the following tools as: e-mail, Facebook, Messendger, BadgeWallet, Padlet, tools Google, Всеосвіта, освіта.ua. However, these tools did not receive more than three responses each.

The participants of the online survey were also asked to respond what online resources they used for distance learning with students during the quarantine. The question if they use such online resources for organization distance learning in the conditions of limited education space was responded with those data: the highest percentage was given by: authorial classes on YouTube – 72,9%; EdEra – 42,3%; Prometheus – 32,5%; Digital education "Dia" – 15,4%; video classes on local chanals – 11,8%.

The coaches were suggested that they should answer the question "What difficulties do you have for organizing distance learning in the conditions of limited education space?". So, the coaches believe the main difficulties to be as follows: insufficient experience – 58,6%; limited access to Internet – 35,3%; insufficient information – 20,2%; not clear instructions from the board of the higher education institution – 10%; insufficient motivation of the coaches themselves to apply distance learning for students – 7,8%.

Among the list of difficulties the respondents noted such difficulties: insufficient technical support of the students for distance learning; limited access to Internet; lack of space on the Google disk; insufficient organization of their own

activity; insufficient motivation of the students; no possibility to train coaches for distance learning; poor quality Internet; net overload. Only three declared no problem.

The question "What needs do you have in certification training in the conditions of limited education space?" was responded by 99 respondents 10% of them noted that they had no needs; 10% declared the lack of time to figure out to organize and provide distance learning yourselves; 20% declared their need competition and clear instructions to use online tools, teaching platforms for organizing work in group, video conferences; 40% of respondents declared that needed online course and webinars, which could give them practical advice in organizing distance learning, and at the same time providing certificates which could be taken into account during pedagogical certifications; 10% respondents wanted, if desired, to have certificates for certain disciplines during online course; 10% of respondents noted their need to be accompanied by IT specialist in the process of distance learning because of being not good in computers and other online resources.

The issues related to the problems and needs of coaches as for implementation of distance learning and their competence training identified a very important information, that is a lack of clear instructions for using online learning methods and low level of readiness of the coaches to communicate in conditions of limited education space.

In Ukraine students are trained using modern computer and multimedia technologies that give them a thorough competence of disciplines. The well-known technology of distance learning – Moodle (modular object-oriented, dynamic learning environment which is a software package for the organization of distance learning via the Internet and is designed to unite participants of the educational process (students and trainers) into a reliable, safe and integrated system for creating a personalized learning environment.

The key elements of the organization of interaction in distance learning course are the tasks of mutual verification of works: mutual commenting, reviewing and evaluation. Preparation of correctly valid criteria for mutual assessment is a difficult task for the trainer, but well-designed criteria ensure the reliability of the results of mutual verification and make it be correlated with the result of the trainer's test.

It is proved that on e of the reason that inhabits the development of distance learning in higher educational institutions is the ignorance of the authors of the content and test entries (as a rule, they are coaches by profession) with elements of programming.

Distance learning is an important component of the preparation of modern educational space in the world which is based on the use of both the best traditional training methods and new information and telecommunication technologies, as well as the principle of self-study, designed for the general population n regardless of material support, place of residence, state of health, etc.

Characteristic features of distance learning are: interactivity of training: interactive opportunities are used in the system of distance learning of the programs and systems of delivery of the information, it allows to adjust and even to stimulate feedback, to provide dialogue and constant support which are not possible in the majority of traditional systems of training; flexibility of education of students receiving distance education in the choice of educational institution, place and time of studying. Students have the opportunity not to attend classes, but to study at a convenient time and in a convenient place. The program is based on the modular principle which allows from a set of independent courses-modules to form a curriculum that meets the needs of students. The main purpose of the distance education is to ensure the further development of the system of pedagogical education in the direction of providing its features and characteristics of exposed education (accessibility, mass, personal orientation, real irregularity). In the future it is necessary to make an analysis the effectiveness of the introduction of cloud technologies in the educational process of higher education institutions.

ABSTRACT: The purpose of the study is to provide a theoretical basis for distance learning and to verify experimentally the coaches' attitude to this method of learning in higher education institutions. Theoretical analysis of foreign science sources showed that the definition "distance learning (education)" should be understood as a space – time distance of the learning process; the use of various facilities of educational information exchange, that provide the two-way communication between the participants of the learning process. Experimental analysis was in the form of online quiz of coaches in the higher education institutions in Ukraine. Its issue was: "Distance learning as coaches see it in the conditions of limited educational space". The area of discussion for coaches that use distance learning methods for professional training of students are the following: insufficient technical support of the students to use training opportunities of distance learning; limited Internet access; lack of free place on Google disk; insufficient organization of students' activities; insufficient students' motivation; insufficient motivation of the coaches themselves to use distance learning methods; lack of opportunities to train coaches for distance learning; poor quality Internet; internet overloading. In future the authors see the need to consider the problem of improving the levels of digital literacy of coaches and students of higher education institutions.

KEYWORDS: virtual universities, teachers, higher education, distance education, distance learning, student.

АНОТАЦІЯ: Метою статті є аналіз теоретичної бази дистанційного навчання та експериментальна перевірка ставлення викладачів до цього методу навчання у закладах вищої освіти. Теоретичний аналіз зарубіжних наукових джерел показав, що визначення «дистанційне навчання (освіта)» слід розуміти як просторово-часову дистанцію процесу навчання; використання різноманітних засобів обміну інформацією про освіту, які забезпечують двостороннє спілкування між учасниками освітнього процесу. Експериментальний аналіз проводився у формі онлайн-опитування викладачів закладів вищої освіти України на тему «Дистанційне навчання, яким його бачать викладачі в умовах обмеженого освітнього простору». Проблемами обговорення для викладачів, які використовують методи дистанційного навчання в умовах професійної підготовки студентів, є: недостатня технічна підтримка студентів у використанні навчальних можливостей дистанційного навчання; обмежений доступ до Інтернету; відсутність вільного місця на диску Google; недостатня організація діяльності студентів; недостатня мотивація студентів; недостатня мотивація самих викладачів до використання методів дистанційного навчання; відсутність можливості підготовки викладачів для використання дистанційного навчання у процесі викладацької діяльності; неякісний Інтернет; перевантаження Інтернету. В майбутньому автори вбачають необхідність розглянути проблему підвищення рівня цифрової грамотності викладачів та студентів закладів вищої освіти.

КЛЮЧОВІ СЛОВА: віртуальні університети, викладач, вища освіта, дистанційне навчання, дистанційна освіта, студент.

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