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DISTANCE EDUCATION AS A COMPONENT OF MODERN LEARNING

Abstract. The article deals with the essence and features of distance learning as an effective tool for management education. The attention is focused on the methods, forms and modes of distance learning. The purpose of the study is to analyse the main elements of distance learning as an effective tool for management education. The basic principles, advantages and problems of distance learning are clarified. A number of promising directions for the development of distance education in Ukraine are identified. The essence of the category "distance learning" is considered and the main periods of its evolution are revealed. The alternative views of scientists on the essence of distance education and its components are revealed. The modern approaches to understanding the implementation of distance learning as a means of solving a number of urgent teaching tasks, namely, improving the efficiency of students' learning activities, better organisation of the educational process, using the capabilities of information and communication technologies in the organisation of the educational process, are analysed. The understanding of the introduction of modern distance learning technologies, modern methods of organising the educational process is defined. The importance of distance learning competencies in the globalised world, which is a prerequisite for gaining competitive knowledge, is substantiated. The conditions for the widespread introduction of distance learning in Ukraine and ways to popularise distance education in all academic areas are highlighted.

Key words: distance education; principles of distance education; forms, methods and technologies of distance education; synchronous and asynchronous modes of distance education; problems and conditions of distance education implementation; prospects for the development of distance education in Ukraine.

1. INTRODUCTION

Statement of the problem. Distance education is considered to be one of the priority areas of the programme modernisation of secondary education institutions. In modern conditions, there is a need for distance learning, which arises from the need to obtain education without interrupting production and to provide education to people with special educational needs, those who are abroad. Humanity has entered the first phase of the new «information society». At this stage of human awareness and education development, distance education has developed, combining the best features of other forms of learning and being the most promising, humane and inclusive form of education. This option enables distance learning through information and education technologies and communication systems. Distance education has many undeniable advantages. In particular, a student can study at a time convenient for him or her, in a familiar and relatively independent environment.

Distance education allows for the implementation of organisational, educational, managerial, control, communication, diagnostic and prognostic functions using modern computer equipment, telecommunication networks and software in the educational process.

The education system complies with the principle of humanism, according to which no one should be deprived of the opportunity to receive an education due to poverty, geographical or temporal isolation, social insecurity, physical defects or inability to attend educational institutions due to disability. That is why it is important, even necessary, to talk about distance learning now. This technology is extremely useful and modern.

Analysis of recent research and publications. Theoretical and practical aspects of distance learning have been thoroughly studied by foreign and domestic scholars: Adams R.J., Dihantz H., Bodendorf F., Eckert B., Bykov V., Kolos K., Kuklieva V., Kukharenko V. and many others.

Formulation of the objectives of the article. The purpose of the study is to analyze the main elements of distance learning as an effective tool for management education.

2. RESEARCH RESULTS

Presentation of the main research materials. Distance learning is an educational process in which a teacher, who is physically or temporarily distant from students, conducts the training. Modern distance education is delivered mainly through technology and online resources [1].

The term «distance education» is sometimes used to describe forms that existed before the advent of computers: distance education, home education, day school. When it comes to explaining the content of distance education, there are two different didactic approaches.

The first method is widely used today: distance education is the exchange of information between a teacher and a student via an electronic network or other means of communication. The learner is considered the recipient of all content and information technology training. The results are reported to the teacher, who evaluates the quality and control of the material.

The second approach is fundamentally different from the previous one. Distance education is based on the productive personal activity of students created with the help of modern means of communication. This approach ensures the integration of information technology and education, thereby guaranteeing the connection of departments and the effectiveness of the learning process. The portal displays services and tracking information by scrolling through forecasts currently stored online. Training takes place in real time (chat, video, remote broadcast) and asynchronously (electronic conferences, forums) [7].

The development of internal knowledge occurs when learners create knowledge products. Quality, individuality, creativity and telecommunications are the main characteristics of this distance education. The process of distance education involves teachers and students, their communication and interaction, and the availability of necessary textbooks and learning materials in the system.

Distance education can meet the needs of students for continuing education, especially in subjects whose content is rapidly evolving and requires the use of information technology. For example, a gifted student from a rural school can simultaneously receive distance education from highly qualified specialists from all over the country and the world without leaving home. Using electronic networks, students from any city can access the cultural and scientific treasures of the world to study at the most prestigious universities in the world.

Distance education is a modern teaching methodology that has been developing dynamically in recent years due to the development of information technology and data processing. It provides quality education and prestigious degrees for students in remote areas where it is not financially feasible to establish a university or branch campus. Distance education is essentially distance education in the information age [2].

In the 1970s, a new model of university began to emerge in many countries: remote, open, «virtual». Currently, more than 100 universities in Western Europe and Ukraine offer education using this technology. At the same time, the most advanced was distance education by e-mail, which at the first stage of the formation of the information society gave rise to a simple idea – to study at least by e-mail, and later to help in using the opportunities.

Today, virtually anyone who wants to learn and has constant access to a computer equipped with a modem and a telephone can participate in flexible and intensive distance learning, register for a course without any entry requirements. Create an individualized program by choosing a suitable system of classes. Flexibility in choosing the duration and pace of study without fixed deadlines; no binding to the place of study. But that's not all: a better understanding of the possibility of providing quality education to people with physical disabilities.

Over the past two decades, there has been a shift from traditional to computer-based learning. This has become possible mainly due to the development of the Internet, which has made it possible to send the necessary amount of knowledge from one end of the world to the other, to communicate online with other network users for free, and to publish information on websites where it is appropriate and accessible.

Modern information technologies make the learning process more efficient. In the course of reforming higher education, the concept of distance education is gradually developing, which requires the development of various technologies, including blended learning methods.

According to the concept for the development of distance education in Ukraine, distance education is a form of education that corresponds to full-time, evening, and external education, which is carried out mainly by distance learning methods [5].

Over the past decades, the scientific and methodological foundations of distance education have evolved rapidly. Despite numerous scientific studies, modern distance education in Ukraine resembles traditional forms of distance education without resorting to completely new forms and methods of teaching.

There is still no unanimous decision among researchers on the concept of «distance education». Some foreign researchers also assign a special role to the organization of telecommunication distance education and call it «distance learning». However, the term «distance education» is often used in academic circles.

Distance education is a technology based on the principles of open education that enables the widespread use of computer programs for various purposes and modern communication. It is a learning environment that provides learning and communication materials [2].

Distance learning has the following advantages:

- efficiency – overcoming obstacles in time and space, constant receipt of «fresh» information, quick feedback;

- informativeness – improved access to educational information on private servers, accessible to students through interactive Internet channels and published on the Internet through teleconferences, e-mail lists and other means;

- communication – the number of potential research participants is increasing – students, teachers, and specialists with fast communication via electronic networks are no longer distant, territorial restrictions on online learning are no longer in place, and projects and competitions are no longer needed;

- educational – due to the peculiarities of long-distance telecommunications, learning from a technical point of view becomes more motivated, more interactive, more individualized, publication of students' works on the Internet, their management and evaluation are simplified;

- psychological – related to the traditional emotional and psychological conditions of students' self-expression, creating more comfortable conditions, eliminating obstacles and psychological problems, eliminating errors in verbal communication;

- financial – the total cost of education is reduced by saving transportation costs, rental costs, reducing paperwork and copying instructions.

- ergonomic – students and teachers have the opportunity to organize classes at a time and pace that suits them, as well as to choose and use equipment and IT facilities that best adapt to the subject being taught [3].

People can study wherever they have access to the Internet (at work, at home, on the road). This makes the learning process smoother, which leads to better results. People don't have to worry about missing difficult classes or catching up quickly. This allows them to be in constant contact with a practicing teacher using telecommunication technologies, including video communication, without leaving their home or workplace, and to have structured learning material presented electronically. Any part of distance education that is insignificant in terms of time and volume can be completed daily (exams, classes, exercises, etc.) [9]. High professionalism, willingness to cooperate, self-confidence and high communication skills with colleagues are the most important qualities of distance education.

The disadvantages of distance education include the following aspects:

- *lack of personal contact between teachers and students.* For some people, this is a real problem because it is normal to be physically in public places and this form of remote communication sometimes seems useless.

- the quality of the Internet connection is poor. Poor internet quality has ruined many online courses and affected the speed and quality of learning. Fortunately, such situations are not the rule.

- technical support. It all depends on the availability and quality of computers and tablets. First, the convenience of taking online courses. It is more difficult to communicate with a teacher on a smartphone than on a computer [19].

- lack of self-organization and discipline. Distance education reveals gaps. If someone has a tendency to be late, it will be difficult for them to stick to the study schedule and maintain motivation to attend classes regularly.

Thus, we have seen the main advantages and disadvantages of distance learning. As practice shows, it has many advantages and interest in this form will grow in the coming years. Mobility, interaction and flexibility are strong features that make distance learning practical and attractive.

Distance learning technology includes educational and information technologies. Distance education gives students the opportunity to get acquainted with non-traditional sources of knowledge, develops independent work, opens up completely new opportunities for creative thinking, opens up and strengthens various professional skills, and thus allows teachers to introduce completely new ways and methods. As Internet technologies and distance learning methods develop, distance education continues to evolve and grow [35].

Distance learning technology is a method of working with a person to achieve independent but controlled access to personal information. Educational technologies have specific requirements, and they must be met in order to ensure them. The content of the data submitted for inclusion is combined into special courses and curricula in accordance with educational standards, information and databases, etc. available in the country.

The development of communication networks and the introduction of so-called new methods of online education: online education, the so-called «educational Internet», which is based on the Internet and uses technology to create classes. Modern distance learning technologies can be divided into three broad categories: non-interactive (printed materials, audiovisuals); IT learning materials (electronic manuals, testing systems); and videoconferencing [5]. E-mail has proven to be cost-effective and technologically efficient: it is used both to send course materials and to provide feedback to teachers. However, opportunities for discussion and collaboration are limited. The network allows not only to work with information and information systems, but also to participate in trainings, consultations and joint development projects in written or video form.

Distance education is learning in which the student has access to a large number of learning resources, and most of the work with the teacher is carried out using modern technologies: satellite communications, computer communications, national television and cable television, multimedia, and systems.

These tools are essential in the distance education system. It has many advantages: ease of use, ease of transportation, etc. Two new genres have emerged: print-on-demand. This is a new mechanism for using information technology to create impressions. The development phases can be divided into two phases: pre-press (content drafts, content editing, typesetting) and post-press (printing and shipping). The entire production cycle has changed and accelerated, with fewer machines and intermediaries. The emergence of new types of publications requires the creation of new systems that deal with metadata (data) [4].

Although computer learning used text and graphics, in the 1990s programmers added sound, video, and animation. New transfer mechanisms (CD-ROMs) improve the way information is presented over time. New compression options for audio and video restore important data. Multimedia systems play an important role in the development of multimedia skills. The current trend of its development is focused on the exchange of materials via the Internet. Multimedia is also developing in the entertainment industry. Some believe that in the future, educational elements will be combined with a fun and informative show. The volume of television production is growing and becoming more and more technological. radio. It has been used since the beginning of open education and is now popular in countries where television and networks are rare. Many local radio stations are developing in Europe today, and many of them are now available online. Virtual reality

is created from simulation, which is used in the comprehensive training of soldiers, pilots, and electricians. The main idea of simulation is to create a real situation for the student. For decades, computer simulations have been conducted to create various model characteristics. However, its development and implementation can be time-consuming and labor-intensive. Virtual reality uses 3D graphics, especially in games. The development of this aspect in education takes more time than modeling [2].

The basic concept of an electronic world is that all the resources necessary for work (information, training, tools) are concentrated in the user interface. This allows the user to independently solve problems that arise during operation Streaming means the simultaneous delivery of learning materials in audio format, which is not always ideal for some students. The new direction can now be translated into the user's Internet radio sound library. Other asynchronous media include audio cassettes and audio CDs. They are widely used and have international standards for them.

The formats of synchronized television broadcasting have evolved from «old school» television to a variety of additional methods (cable, satellite, microwave). New technical solutions are emerging, such as high-definition television (HDTV). CD-ROMS. These devices replaced splitters in the mid-1990s and increased the amount of stored data by 500 times. Suitable for importing audio and video files. CD-ROM has an international standard that facilitates data exchange. The popularity of this tool is expected to grow. Users can now create their own drivers. DVD. In addition to VCRs and CD-ROMs, video disks were also introduced, which had six times the capacity of CD-ROMs and could play three hours of video. These DVDs provide the education sector with higher quality, search functions, better multilingual titles, and more [4].

Computer networks are becoming an important tool for distributing educational materials. The term includes broadband and voice conferencing, computer conferencing, and video conferencing. Audio and video conferencing are synchronous, while computer conferencing is asynchronous. Audio conferencing uses traditional telephone communication and is very cost-effective. Video conferencing is available between teams, but in the last three years, video cards have been developed that can improve communication. There are many ways to conduct computer conferencing, the first being SMS, and now you can use synchronous communication with graphics, transfer images, and participate in audio conferencing. E-mail. The most effective asynchronous technology that allows to send emails to individual recipients and groups of people. A mailing list can be used to collaborate on solving various problems [8].

Conclusions and prospects for further research. Distance education plays an extremely important role in the education of disabled, blind, and deaf students who cannot study according to the regular curriculum. They should not be left without education because these people can also work and serve the state and society. Such a person can be a genius and develop their country.

In today's world, this is impossible without continuous professional development, because everything around us is constantly improving and scientific and technological progress is constantly moving forward. The observed technology, on the one hand, guarantees quality training with the participation of top-level professional teachers, on the other hand, adjusts the teaching methodology depending on the level of students' training and their psychological characteristics revealed in previous tests.

REFERENCES (TRANSLATED AND TRANSLITERATED)

[1] Antoniuk O. Menedzhment v osvitianskii sferi: kontseptualni zasady. Personal. 2006. №10. S. 58-66 (in Ukrainian).

[2] Kontseptsiia novoi ukrainskoi shkoly [Elektronnyi resurs]. Rezhym dostupu:http://mon.gov.ua/Novyny 2016/12/05/konczepcziya.pdf. Nazva z ekrana (in Ukrainian).

[3] Nychkalo N. H. Rozvytok profesiinoi osvity i navchannia v konteksti yevropeiskoi intehratsii. Pedahohika i psykholohiia. 2008. T. 1. S. 57–69 (in Ukrainian).

[4] Nikulochkina O. V. Rozvytok informatsiinoi kompetentnosti vchytelia pochatkovykh klasiv u systemi pisliadyplomnoi osvity : dys. … kand. ped. nauk : 13.00.04. Zaporizhzhia, 2009. 278 s (in Ukrainian).

[5] Ponomarova H. F. Teoretyko-metodolohichni zasady samovykhovannia maibutnikh pedahohiv u protsesi modernizatsii vyshchoi pedahohichnoi osvity. Naukovi zapysky kafedry pedahohiky. 2018. Vyp. 42. S. 139–145 (in Ukrainian).

[6] Pototska T. Pidhotovka maibutnikh vchyteliv do metodychnoi tvorchosti. Pedahohichni nauky: zb. nauk. prats Berdians. derzh. ped.. un-tu. 2007. № 1. S. 179–184 (in Ukrainian).

[7] Semenets-Orlova I.A. Suchasni tendentsii upravlinnia aktualnymy osvitnimy zminamy na prykladi zarubizhnoho dosvidu. Universytetski naukovi zapysky. 2014. № 1 (49). S. 219-226 (in Ukrainian).

[8] Stepanets I. O. Naukovo-metodychna robota u pedahohichnykh VNZ na zasadakh kompetentnisnoho pidkhodu. Naukovi zapysky kafedry pedahohiky. Kharkiv : KhNU imeni V. N. Karazina, 2014. Vyp. 37. S. 329–336 (in Ukrainian).

[9] Shtefan L. A. Dystantsiina osvita yak forma orhanizatsii navchannia. Psykholoho-pedahohichni problemy vyshchoi i serednoi osvity v umovakh suchasnykh vyklykiv: teoriia i praktyka. 2 Vyp. 54. S. 92–95 (in Ukrainian)

ДИСТАНЦІЙНА ОСВІТА – СКЛАДОВА СУЧАСНОГО НАВЧАННЯ

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Анотація. У статті розглянуто сутність та особливості дистанційного навчання як дієвого інструмента управлінської освіти. Акцентовано увагу на методах, формах і режимах дистанційного навчання. Метою дослідження є аналіз основних елементів дистанційного навчання, як дієвого інструменту управлінської освіти. З'ясовані основні принципи, переваги та проблеми дистанційного навчання. Визначеноколо перспективних напрямків, щодо розвитку дистанційної освіти в Україні.Розглянуто сутність категорії «дистанційне навчання» та розкрито основні періоди її еволюції. Розкрито альтернативні погляди науковців щодо сутності дистанційної освіти та її складових. Проаналізовано сучасні підходи до розуміння впровадження використання дистанційного навчання, як засобу впровадження вирішенню низки актуальних викладацьких завдань, а саме, підвищення ефективності навчальної діяльності студентів, кращої організації навчального процесу, використання можливостей інформаційно-комунікаційних технологій при організації навчально-виховного процесу. Визначено розуміння впровадження сучасних технологій дистанційного навчання, сучасних методик організації навчального процесу. Обгрунтовано важливість компетенцій дистанційного навчання у глобалізованому світі, які є необхідною умовою для здобуття конкурентоспроможних знань. Висвітлені умови широкого впровадження дистанційного навчання в Україні та шляхи популяризації дистанційної освіти у всіх навчальних напрямах.

Ключові слова: дистанційна освіта; принципи дистанційного навчання; форми, методи та технології дистанційного навчання; синхронний і асинхронний режими дистанційного навчання; проблеми та умови вровадження дистанційної освіти; перспектива розвитку дистанційного навчання в Україні.

СПИСОК ВИКОРИСТАНИХ ДЖЕРЕЛ

[1] Антонюк О. Менеджмент в освітянській сфері: концептуальні засади. Персонал. 2006. №10. с. 58-66.

[2] Концепція нової української школи [Електронний ресурс]. Режим доступу: http://mon.gov.ua/Новини 2016/12/05/konczepcziya.pdf.– Назва з екрана

[3] Ничкало Н. Г. Розвиток професійної освіти і навчання в контексті європейської інтеграції. Педагогіка і психологія. 2008. Т. 1. С. 57–69.

[4] Нікулочкіна О. В. Розвиток інформаційної компетентності вчителя початкових класів у системі післядипломної освіти : дис. … канд. пед. наук : 13.00.04. Запоріжжя, 2009. 278 с

[5] Пономарьова Г. Ф. Теоретико-методологічні засади самовиховання майбутніх педагогів у процесі модернізації вищої педагогічної освіти. Наукові записки кафедри педагогіки. 2018. Вип. 42. С. 139–145

[6] Потоцька Т. Підготовка майбутніх вчителів до методичної творчості. Педагогічні науки: зб. наук. праць Бердянс. держ. пед.. ун-ту. 2007. № 1. С. 179–184.

[7] Семенець-Орлова І.А. Сучасні тенденції управління актуальними освітніми змінами на прикладі зарубіжного досвіду. Університетські наукові записки. 2014. № 1 (49). С. 219-226.

[8] Степанець І. О. Науково-методична робота у педагогічних ВНЗ на засадах компетентнісного підходу. Наукові записки кафедри педагогіки. Харків : ХНУ імені В. Н. Каразіна, 2014. Вип. 37. С. 329–336.

[9] Штефан Л. А. Дистанційна освіта як форма організації навчання. Психолого-педагогічні проблеми вищої і середньої освіти в умовах сучасних викликів: теорія і практика. 2 Вип. 54. С. 92–95.