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The use of e-learning in higher education

Abstract. *Purpose: analyzing the possibility of introducing means "e-learning" in the sphere of student physical culture and sport. **Material and Methods:** in the study used theoretical methods, including analysis and synthesis of literature and materials located on the Internet. **Results:** considered theoretical information about "e-learning". **Conclusions**: It was found that there are many definitions of the term "e-learning"; established the existence of: common elements of distance and "e-learning"; specific qualitative properties of e-learning, strengths and weaknesses. On the basis of theoretical analysis of "e-learning" can be argued that "e-learning" can and should be embedded in the sphere of student physical culture and sports.*

Keywords: *innovation, learning process, physical culture, electronics learning.*

Introduction. The present stage of the development of the world economy is characterized by a transition from the industrial to information society in all spheres of the human activity. Such transition demands introduction of the modern intellectual information technologies which have a considerable impact on different processes in the sphere of educational services [9].

The rapid progress in the branch of information technologies allows using personal computers as an effective remedy of a study. Automation of the process of a study is carried out with the use of computer training programs and electronic textbooks which are used not only with the use of magnetic carriers (laser disks), but also with an application of local and global computer networks. In the latter case there are formations of specialized information-educational environments that allows realizing modern technologies of a study. For filling of information-educational environments, and also for the effective use of local and global computer networks it is necessary the expeditious development of quality electronic training courses which answer a current state of science in this subject branch [6].

The general objective of the creation of electronic training courses – is the increase of efficiency of the process of assimilation of knowledge and the improvement of quality of training of specialists. In the system of internal education the electronic training courses can be used as additional educational resources which allow organizing methodically correctly the independent work of students controlled by a teacher in quality. Thus, the gradual introduction of technologies of open education, in particular, to a method of electronic study will be carried out within internal education. At the same time in the system of open education the electronic training courses are the main source of educational information for those who is taught.

The data on a condition of the electronic study in our country and around the world testify to an urgent need of its stimulation to provide the dynamic and progressive development and the introduction on all education levels, first of all, – higher because the electronic study is the innovative technology directed on professionalizing and the increase of mobility of those who studies and at the present stage of the development of ICT it can be considered as a technological basis of a fundamentalization of the higher education [10, p. 84].

The development of the information infrastructure of the society and the professional activity makes a number of new demands to training of specialists. Studying of the innovative pedagogical experience and the analysis of scientifically methodical literature showed that the use of modern communicative and information technologies is the most important reserve of the improvement of the system of multilevel education. The analysis of a condition of a question shows that information-communicative technologies didn't find the appropriate appendix for the objective and subjective reasons [8] yet at the present stage in the system of physical culture and sport.

Authors [1; 3] specify in the researches that the special place among means of information technologies of a study is taken by computer educational systems. Such systems give the chance to students independently to study material, having worked it in the interactive mode.

L. V. Filenko in the work [13] notes that the use of information technologies is an effective remedy of

optimization and improvement of quality of training of students in the educational process. She investigated the interrelation of individual cognitive qualities of students with the level of assimilation of a training material means of computer technologies and they are confirmed a direct influence on the level of assimilation of a training material.

A number of researchers were engaged in the analysis of problems of introduction of means of an "electronic study" in the educational process of students: V. S. Ashanin (2004); V. A. Druz; (2005) N. M. Kiyanovska (2012); T. S. Klyebanova (2010); V. S. Ponomarenko (2009; 2010); S. O. Semerikov (2009); P. I. Fedoruk (2008); L. V. Filenko (2007), R. M. Yatsenko (2010; 2012) and others. However the analysis of an opportunity and an algorithm of introduction of means of "electronic study" wasn't revealed in the sphere of physical culture and sport of students of a day form of a study that caused the formulation of a subject and a statement of the research objective.

Communication of the research with scientific programs, plans, subjects. The work is performed according to the plan of the RW of the chair of physical training and sport of Simon Kuznets Kharkiv National University of Economics by the subject "Administrative aspects of functioning of the chair of physical training and sport".

The objective of the research: to analyse the possibility of introduction of means of "electronic study" in the sphere of physical culture and sport of students.

The tasks of the research:

1. To define the basic concepts, characteristic features, advantages and shortcomings of "electronic study" on the basis of the analysis of references.

2. To draw conclusions by the topic of the research.

Material and methods of the research. The used theoretical methods of the research, including the analysis and the generalization of special literature and the materials which are posted in Internet.

Results of the research and their discussion. The concept "electronic study" (e-learning) is used near the old term today "remote study" which for the first time gained legal recognition in the Law of Ukraine "About the national program of informatization" of February 4, 1998 [4]. Further the remote form of a study got legislative fixing in the art. 42 of the Law of Ukraine "About the higher education" [5]. Also terms are used: "e-learning" (electronic learning), "teleteaching", "Internet-based learning", "Open learning", "online learning". The whole noted terms unite such common features as the use of information technologies when providing educational services; the possibility of communication between a student and a teacher online; the remote access to training materials. C. O. Semerikov allocates elements of the system of "electronic study" which are the general with the oneremote [10, p. 91–92]:

– semantic objects: the training material is divided into modules which contain objects of the different kind – text, graphics, image, audio, animation, video and so forth. As a rule, they are stored in a database and available depending on needs of subjects of a study. The study individualization is a result – students receive only that is necessary for them, taking knowledge at a desirable speed;

– communities: students can create Internet-communities for a mutual aid and an exchange of messages;

– expert online help: teachers or experts (instructors of a course) are available in a network to carrying out consultations, answers on questions, organizations of discussion;

– opportunities for cooperation: by means of the corresponding software it is possible to organize on-line conferences, collaboration over the project of the students geographically remote one from another;

– multimedia: modern audio and video technology of representation of training materials for the purpose of the stimulation of aspiration of students to acquisition of knowledge and increases of efficiency of a study.

N. M. Kiyanovska, with the link to authors, direct some definitions of the concept "electronic study":

1. Mark Rosenberg gives such interpretation to the term e-learning: e-learning – is a use of Internet-technologies for granting a wide range of decisions which provide the increase of knowledge and labor productivity; e-learning is based on three basic principles: work is carried out on a network; delivery educational to content to the end user is carried out by means of a computer with the use of standard Internet-technologies [11; 17].

2. Allison Rossett defines e-learning so: ***Web-study (WBT) or "electronic study", or online study***, is a training which is on a server or on a computer, connected to the net Internet (World Wide Web) [15].

3. Specialists of UNESCO consider that e-learning is a study for the help of Internet and multimedia [14].

4. *E-learning* – is the study constructed with the use of information and telecommunication technologies. It covers all range of actions, beginning from the support of the study process till the delivery of educational content to listeners [18].

5. According to V. Y. Bikov, *"electronic remote study"* — is a kind of a remote study by which participants and organizers of the educational process carry out mainly individualized interaction as asynchronous, and synchronously in time, mainly and essentially using electronic transport systems of delivery of means of a study and other information objects, computer net Internet, media educational means and information-communication technologies [16].

6. *Electronic study* (e-learning) is the technology of a study based on the use of computer aids and systems of data transmission for representation and delivery of knowledge, support of interaction of a student and a teacher, and also control of knowledge [11].

Specific *qualitative properties* of "electronic study" [16]:

1) *flexibility and adaptability* of the educational process to requirements and opportunities of students who generally don't attend regular trainings, and work in a convenient time (both for a teacher, and for a student) for such work in a convenient place and convenient speed;

2) *modularity of a creation* of training programs;

3) *a new role of a teacher*: a teacher coordinates the educational and informative process, corrects a course which spreads, directs educational projects, checks the current tasks, advises by drawing up the individual curriculum, operates educational groups;

4) *specialized forms of control* of quality of educational achievements: traditional forms of quality control of education and remote (interviews, practical, term and project works, external studies, work in the environment of computer intellectual test systems, and so forth);

5) a *use of specialized means of a study*.

Except the solution of the prime task – a study at distance, e-learning can become excellent addition of an internal form as technologies which are applied when developing electronic training courses, will be a beautiful support for the improvement of quality and efficiency of a traditional study [11].

The author N. M. Kiyanovska [7] notes in her work that "electronic study" (e-learning) develops rather actively on the present in the world to which the increased demand promotes for educational services and a level of the development of ICT. Most of all users of "electronic study" are in the USA and Canada. Among the European countries leaders is Great Britain, Germany, Italy and France.

Experts of UNESCO consider that for compliance of qualification of workers with the level of information society, necessary introduction in thhe educational process of "electronic study" which focuses students on a new style of education and promotes the development of their skills for the subsequent study during the whole life [10].

Advantages and shortcomings of "electronic study".

That fact that in "electronic study" all materials of a training course are digitized and stated in Internet, provides a number of advantages in the organization of the educational process:

1. Availability of a course at any moment. Electronic technologies allow organizing a study by the principle "24/7/365". A student can work on a course 24 hours for days, 7 days for a week, and 365 days in a year. Electronic tasks and lectures are available to participants of a course at any time, and students considerably independently solve at what speed to them you take this course.

2. Availability of a course from any point of the world where there is an access to Internet. Thus for the majority of courses not the obligatory high speed of connection to a network: an usual dial-up of connection via a modem is enough.

3. Width of the provided information. Being in the environment Internet, a student can directly address in the course of work on material of a course in any world sources (resources of other educational centers, electronic libraries all over the world etc.).

4. Efficiency of providing information. In a traditional study a source of information is a book which turnover cycle takes months, and sometimes and years. Today there is a number dynamically developing sciences in which information which is saved up in monographs becomes outdated already by the time of their edition. Internet allows to update any information and to provide access to it for students within minutes.

5. More flexible organization of the educational process. There are sections simpler and more difficult in any educational subject. "Electronic study" allows a teacher to concentrate on more difficult sections of a course, having stated simple fragments for an independent study.

6. Automation of the educational process –there is no need to make a set of the same options of tasks for a test and to check results of their performance to a teacher: the system will pick up any parameters at the request of a teacher and will carry out a check and preservation of results in a register of a teacher.

7. Miltimedia. Except traditional text and graphic information, e-learning naturally allows using all means of multimedia in the course of formation: animation, video, sound and color. It provides the presentation of the offered material and allows involving the majority of mechanisms of the perception by a person of new information.

8. Electronic technologies of a study answer mentality of modern youth the best for which Internet practically became "the second reality".

9. A sure possession of the modern information-communication technologies is one of key competences of the graduate of a modern educational institution. Passing of a study by a student in the e-learning format allows increasing the general computer education of students sharply.

10. Width and scale of the provided information. An exit to global information resources form the corresponding style of thinking at a student. Besides, the use of e-learning is provided much more opportunities for an independent work of a student, promoting the formation of skills of self-organization and rational planning of school hours [2].

Authors of a resource [18] mark out such advantages:

1. Personification. A listener of a study who is carried out with the use of technologies of "electronic study", can independently: to determine the speed of studying of a training material; to define when he wants you pass a study; to define, which sections he should study.

2. Possibility of a combination of the educational content for the formation of the various training programs adapted under the specific student.

3. Opportunity to receive much more information, knowledge, skills and abilities, necessary for an assessment received as a result of the carried-out study.

4. Using of wide range of various means of a study therefore a study which is carried out with the use of technologies of "electronic study", is most often more effective in comparison with a traditional internal study.

5. Possibility of its use for carrying out a study of persons who have limited opportunities.

6. Creation of an effective control system of a study constructed on possibility of collecting much more information on passing of a study by a listener in comparison with a traditional internal study.

According to the author [12], the "electronic" form of a study has a number of advantages, namely:

– the reduction of unproductive expenses of a work of a teacher;

– a free choice by a student of strategy and tactics of a study;

– the continuous return communication in the course of a study;

– the efficiency and the objectivity of a control and an assessment of results of a study;

– the individualization of the educational activity;

– the differentiated approach to students;

– the increase of motivation of a study.

To shortcomings of a study which is carried out with the use of technologies of "electronic study", it is necessary to carry [18]:

1. Need of formation of an additional motivation at listeners of a study which is carried out with the use of technologies of "electronic study", in comparison with other forms of a study.

2. High dependence on technical infrastructure. Failure in infrastructure can lead to the decrease in efficiency or in general study failure.

3. Lack of enough experts in the sphere of technologies of "electronic study".

Authors [2] note that electronic educational technologies, as well as any other achievements of the progress, have also certain *shortcomings*. They arise from understanding of full education as the interconnected process of a study and education: a study on the basis of computer programs isn't capable to replace a direct communication of a teacher with a student. Purely "electronic study" is depersonalized. Allowing a broad automation of the process of a study, it isn't able to consider specific features of intelligence and temperament

of students. The rigid "digital" logic which is consistently realized in "electronic study" is poorer than the human logic of the analysis of events and decision-making. Most often the correct decisions in life are made only at the accounting of emotional factors and ethical reasons which aren't programmed. The mass introduction of Internet in everyday life – is the indisputable benefit of a civilization. However already today, even at the beginning of informatization of mankind, there are risks connected with it. The considerable part of youth considers life in a network as the second reality which in certain cases turns into reality the first. There is a risk to receive "electronic generation" with the simple mechanistic thinking which is torn off from a real life. An inadequate use of "electronic study" can promote the development of these negative tendencies. Clearly, it doesn't mean refusal of full and large-scale introduction of electronic technologies. There is no doubt, they are progressive and necessary. The question consists only in that "electronic education" wiil not force out a traditional education, and will integrate at it. The part of an electronic component in education has to grow in the process of increase of education level in sequence: school → higher → additional education. That is at school when a pupil is in a stage of an active formation, the identity of a teacher and a direct communication with him are especially big and expedient use only of separate elements of electronic study. On the contrary, additional education which is got by a mature, a created person, can be especially pragmatic and realized completely on an electronic platform. Higher education institutional education is in the middle from this point of view and allows a wide use of the electronic platforms integrated into traditional forms of a study.

Conclusions:

1. It is possible to note from the analysis of references that there are many definitions of the concept "electronic study". Despite of a difference of remote and electronic study, they have the general elements [10], namely: semantic objects, communities, expert online help, opportunities for cooperation, multimedia. Also "electronic study" has the specific qualitative properties [16]: flexibility and adaptability, construction modularity, a new role of a teacher, specialized forms of quality of control of educational achievements, uses of specialized means of a study. Despite of numerous advantages, "electronic study" has certain shortcomings which should be considered at introduction in the educational process.

2. On the basis of the theoretical analysis of "electronic study" it is possible to claim that electronic study can be and necessary to introduce to the sphere of physical culture and sport of students.

Prospects of the subsequent researches. It is planned to introduce a platform of a remote study of Chamilo in the sphere of physical culture and sport of students of Simon Kuznets Kharkiv National University of Economics and to analyse the results of introduction.

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