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E-LEARNING AS A MODERN TOOL IN CORPORATE TRAINING

The paper presents the idea of using e-learning in its economic aspects. The e-learning is a modern way of acquiring knowledge. It differs from the original, stationary way of learning. There are advantages and disadvantages of this type of education, although using e-learning as a way of additional courses for employees can bring benefits to a company.

Keywords: e-learning; economy.

JEL codes: Z00, P34.

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ЕЛЕКТРОННЕ НАВЧАННЯ ЯК СУЧАСНИЙ ЗАСІБ КОРПОРАТИВНИХ ТРЕНІНГІВ

У статті представлено ідею застосування електронного навчання в його економічному аспекті. Електронне навчання — це сучасний спосіб здобуття знань. Він відрізняється від традиційного способу навчання. В цього різновиду освіти є свої переваги і недоліки, хоча використання електронного навчання як додаткових курсів для співробітників може принести користь для компанії.

Ключові слова: електронне навчання; економіка.

Эдита Лукашик, Мария Скублевска-Пашковска
ЭЛЕКТРОННОЕ ОБУЧЕНИЕ КАК СОВРЕМЕННОЕ СРЕДСТВО КОРПОРАТИВНЫХ ТРЕНИНГОВ

В статье представлена идея применения электронного обучения в его экономическом аспекте. Электронное обучение — это современный способ получения знаний. Он отличается от традиционного способа обучения. У этого вида образования есть свои преимущества и недостатки, хотя использование электронного обучения как дополнительных курсов для сотрудников может принести пользу компании.

Ключевые слова: электронное обучение; экономика.

Introduction to e-learning systems. Nowadays, people need to learn for a whole life. This forces the creation of a completely new system that varies from the well-known stationary ones. The new system has to enable people to learn with the use of new educational methods such as: training, tuition and self-learning. These techniques can be applied in learning at distance. It can be created with the use of criteria of different types like: various fields and aspects of the occurrence, country, time of using, the level of education (*Koziel*, G., 2012; *Milosz, M. et al.,* 2012), the institution that applied the method as well as the way of introducing it.

The simple definition of the modern type of learning is that e-learning is all the tasks supporting the education process with the use of information and communication technology (ICT). This idea is related to various aspects of our life, but mainly to education and information technologies. E-learning is often confused with the only

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idea of technology, while learning and trainings are mainly part of the process. The information technology only supports the e-learning.

There are several e-learning aspects:
- Technological — Internet, computer, education platforms.
- Economic — unlimited number of participants, reusing the prepared materials.
- The individual process of learning — due to time, place and speed of learning.
- Social — working in virtual environment.
- Pedagogical — using the pedagogical theories in e-education.

E-education can be divided into sections (*Penkowska, G.,* 2010):
- E-learning used in schools.
- E-learning used in universities and colleges.
- E-learning used in corporations.

In this paper the main concentration is on the last section, corporate e-learning. It considers the part of improving trainings and a very important economic aspect for companies. The comparison between the e-learning courses and the traditional ones gives the advantage to the modern process. The main advantages of e-learning are (*Rossett, A.,* 2002):
- employees assets;
- range of organization;
- improving the quality of customer service.

The good course is a compromise between perceptual capabilities of trainees and the methods of knowledge presentation and the way it is delivered. The well performed e-learning course gives benefits.

Main components of e-learning in 3 dimensions. E-learning process consists of many elements. There are 3 main components that can be specified: people, knowledge and communication (*Hyla, M.,* 2003, 2009). E-learning suite is an integrated operating environment in all the dimensions (*Lundy, J.,* 2003).

People component consists of the systems such as:
- LMS — Learning management system — used to manage the courses;
- SMS — Skills management system — used to manage competences and skills;
- AS — Assessment system — used to manage tasks connected with testing, collecting opinions and certifications.

Knowledge component consists of the class systems such as:
- LCSM — Learning content management system — knowledge management system training;
- EPSS — Electronic performance support system — supporting system;
- AT — Authoring tools — own solutions.

Communication component consists of the class system LCS — Life communication system — remote management system communication.

The class systems LMS used together with LCMS and LCS systems are the most significant aspects of managing the courses.

LMS class systems. LMS system is the software applications dedicated to manage and administrate all the tasks connected with courses and trainings. The system supports the work of training department. It is used to organize the work of instructors, to manage the registration of the participants and to schedule courses. The system is not used to deliver the e-learning courses via network. It can track all course

processes in a company. There are 5 functions of the LMS system: management, tracking the learning process, analytical and reporting. They are connected with the content of the training and also with the support for remote training.
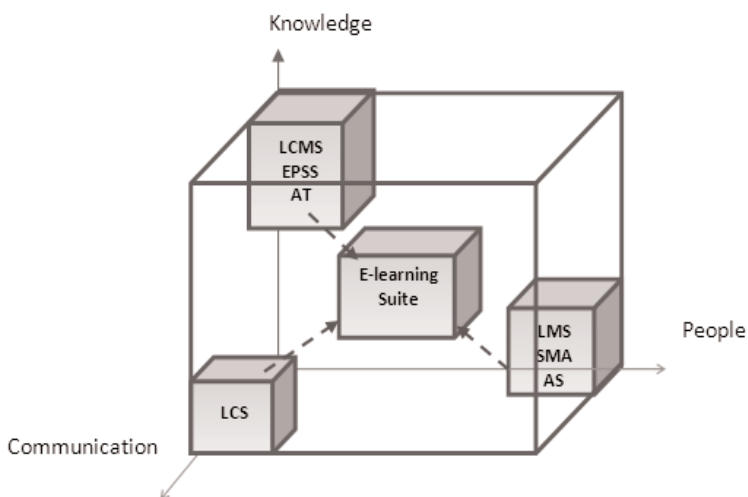

Figure 1. **Three dimensions of e-learning system and its components** (*Hyla, M.,* 2009)

LMS system enables both recording the data of training activities and presenting a whole image of improving the employee qualification process.

People who are associated with that system and those who participate in the courses are (*Hyla, M.,* 2009):

- instructor — responsible for: interaction during a course, supervising (tracking) the training, realization the traditional part of a course;

- manager — responsible for: approving training plans and preparing multivariate analysis of the results;

- course administrator — responsible for: course registration, publishing information about the courses;

- trainee any method — has online access to training plans, has the possibility to elaborate part of trainings and to possess new information;

- trainee online — has online access to the contents of courses, to interaction and online communications, the person self-studies.

AS class systems. It is a class system dedicated to designing, creating and performing tests and exams online. The system has to get both the proper network infrastructure and the proper computer server. The trainee has to get access to the Internet and to a web browser.

LCMS class systems. This kind of system is used to manage the contents of a course. An objective designing, creating, storing and receiving training materials via various methods are its main tasks. All created and imported data are placed in database system which is called a content repository.

LCS class system. This type of system is dedicated to manage the process of distant synchronic communication. It provides effective communication and supports all needed actions involved in this process. The most important features of this system are: management, technical, support of presentation and interaction.

Classic model of training

Elements of training. The general model of training is similar for each types of educating. It consists of the same 3 elements (*Hyla, M.,* 2003):
- Recipient (trainee);
- Sender (instructor);
- Communications (methods of exchanging information).

Figure 2. **Elements of training**

E-learning training differs from the traditional way of education mainly in the way of communication. Computer network is the basic way of exchanging information in e-learning training. Additionally, CD-rom, phone, audio- and videoconference are used.

3J model in e-learning. The general model of education makes us accustomed to "learning just in case". Nowadays there may be not enough funds to train employees when a course is starting. Employers count all the spent on education money. This attitude makes the quality of training process worse. That is why e-learning training suggests new courses that (*Penkowska, G.,* 2010):
- are tailored to the needs of a trainee (just for me);
- are organized when they are needed (just in time);
- enable learning in efficient way (just enough).

The courses that meet the above rules improve quality and efficiency of trainings. They bring the effects such as: positive influence on a trainee, mobility of knowledge, individual process of learning, a positive process of lifelong learning. The money spent on that kind of courses is not a waste. An employer knows that employees who attended an e-learning course would bring benefits to a company.

The company benefits from using e-learning. The advantages of corporate e-learning are (*Hyla, M.,* 2003, 2009):
- reduction of costs on training;
- centralization of learning process;
- knowledge standardization;
- convenience of training realization;
- the possibility of repeating the trainings;
- easy content modification and its immediate distribution;
- individualized training;
- the possibility of better using the knowledge organization;
- the possibility of better known and understood human capital organization;
- a good complement to other training methods;
- reduction in staff turnover.

Although corporate e-learning has a lot of advantages, it also has also the disadvantages. The cost of a good e-learning system is a big investment. It is one of

the main disadvantages. Despite the cost, it is worth considering because in the long term using it is profitable. Another disadvantage is the resistance of trainees to work with computer. It can be caused by several reasons like: lack of computer skills or suitable adaptation of the network to the requirements of the courses. The company should avoid being associated with only one provider of the courses when it comes to training program. This type of courses could have a negative impact on organizational culture and employee appreciating because travelling for a training is still treated as a reward. Still there are many other ways of rewarding employees.

Nowadays people should be innovative and look for new e-learning appliances in new places and fields. It is a very common situation that e-learning is used outside a company, e.g., as outdoor courses and trainings.

Financial benefits of e-learning. Before making a decision about attending a course (or sending employees) the financial analysis should be done. The analysis concerns the financial benefits the company could gain after that kind of trainings. The real measures of cost-effectiveness of e-learning courses are needed. It is necessary to answer two questions. The first one is "What kind of financial components are in the organization of educational processes?". The second one is "How can the cost-effectiveness of the e-learning process be defined?" (*Dabrowski, M.,* 2012).

The analysis of the cost-effectiveness of e-learning is a complex and problematic task. It has several aspects: the type of a process, the difficulty in analyzing the cost-effectiveness (not only in e-learning but also for corporation trainings) and finally lack of good practice in analyzing costs of e-learning courses.

Return on investment (ROT) is a traditional tool used in cost-effectiveness analysis. It is perfect with real, material objects for analysis. However, education and learning, are not real and material aspects. That is why it is necessary to use another, more adequate tool. This new tool is return on expectation (*Dabrowski, M.,* 2012).

3 types of costs can be recognized. They are present in the modern distant education process. These costs are (*Bassi, L.,* 2008):
- Direct costs;
- Indirect costs;
- Alternative costs.

The indirect costs of educational process are contained in management costs, preliminary costs, estimate costs, accounting costs, advisory services costs and the amount of the provision of compensation. The provision of compensation is the amount of expenses, e. g., salaries of employees paid during their attendance of the courses. In the traditional types of trainings it is estimated that the indirect costs are on average twice higher than the direct costs of trainings.

In turn, alternative costs of trainings are the costs of potential losses of benefits from the employees who participate in courses. It is assumed that the average cost of the loss of benefits is much higher than compensation expenses.

The average ratio of the monetary value of the loss benefits to the employee's salary can be from 1.5:1 and up to 2:1. Thus, the average alternative cost is from half to twice the salary (*Bassi, L.,* 2008; *Morrison, D.,* 2003).

The comparison of traditional and e-learning trainings in the 3 above groups can specify the type and the cost-effectiveness both of the form of education. Table 1 presents the simplified estimation profiled towards the corporate training market.

Table 1. **Fixed and final costs of traditional and Internet courses**
(*Dabrowski, M.,* 2012)

	Traditional course		Course via Internet	
	Fixed cost	Final cost	Fixed cost	Final cost
Indirect costs				
Instructor salary			none	none
External suppliers				
Preparing the course				none
Printing of the materials			none	none
Distribution of the materials			none	none
Computer equipment	none	none		
Software	none	none		
Travel, accommodation costs			none	none
Administrative support				
Direct costs				
Compensating provision for learners			none	none
Overall				
Alternative costs			none	none

As it can be observed in Table 1, in e-learning courses there are no alternative costs and only part of the direct costs. For all 9 types of indirect costs, there are only 5. This indicates the financial advantage of the courses via the Internet in relation to traditional ones.

Conclusions. It is obvious that e-learning method has some defects. Always all pros and cons should be considered in a particular organization and then decided if it is profitable. This type of trainings needs to maximize the positive aspects of it and to minimize the negative influence.

One of the false statements is that the nature and the profile of a company causes that e-learning in a organization has no use. It is worth remembering about the complexity of e-learning system which is a tool to run a course.

Nowadays the e-learning courses are the developing field of knowledge acquisition. They are much cheaper than traditional courses which is the main aspect in favor of training by distance learning.

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