

E-learning Process: Students' Perspective

Vilmante Kumpikaite ⁺, Kestutis Duoba ¹

Kaunas University of Technology, Lithuania

Abstract. E-learning is already being used more widely in education and training, and this can be exploited in the home and in community centres, as well as in universities and the workplace. Individuals are discovering that they can now access courses that were hitherto unavailable to them, making it easier for them to get involved in personal and professional learning. The aim of the paper is to present results of researches, which show students' view to information technologies in study process, and e-learning itself. These results showed the most of respondents use IT for their studies every day, mostly for communication, searching and editing documents, and e-learning.

Keywords: e-learning, students, information technologies.

1. Introduction

The introduction of e-learning represents a significant change in practice that really needs to be managed carefully, and there are a number of important components at different levels that require alignment through the process of change management (Kumpikaite and Ciarniene, 2008 a, b).

This paper draws on prior exploration on training technologies, especially e-learning in development process for students. The increasing use of new technologies to deliver training and to store and communicate knowledge means that trainers must be technologically literate. That is, they must understand the strengths and weakness of new technologies and implementation issues such as overcoming users' resistance to change.

2. E-learning as a mean of studies

2.1. Definition of E-learning

Electronic learning is a process of information handling by means of the Internet and other information technologies. Waller and Wilson (2003) define e-learning as "the effective learning process created by combining digitally delivered content with (learning) support and services". Jackson (2002) defines e-learning, using a definitional dichotomy which distinguishes between the use of technology to achieve enhanced learning (when learner audience has frequent opportunities to meet face-to-face with the instructor in traditional classroom) and delivered learning (where the learner audience is never or very rarely in physical proximity to the instructor and instructor-led traditional classroom sessions are either eliminated, or replaced with real time virtual classrooms).

The main characteristics of e-learning: (1) E-learning involves electronic networks that enable information and instruction to be delivered, shared, and updated instantly and (2) E-learning is delivered to the trainee using computers with Internet technology.

It focuses on learning solutions that go beyond traditional training by including the delivery of information and tools that improve performance.

⁺ Tel.: + 370 37 300571; fax: + 370 37 323683.
E-mail address: vilmante.kumpikaite@ktu.lt

The features of e-learning include collaboration and sharing, links to resources, learner control, delivery, and administration. E-learning not just provide the trainee with content, but it also can give learners the ability to control what they learn, the speed at which they progress through the program, how much they practice, and even when they learn. In addition, e-learning allows learners to collaborate or interact with other trainees and experts and provides links to other learning resources such as reference materials, company websites, and other training programs. Text, video, graphics, and sound can be used to present course content. E-learning may also include various aspects of training administration such as course enrolment, testing and evaluating trainees, and monitoring of trainees' learning progress.

Consequently the adoption of an e-learning solution is becoming increasingly attractive as a solution to provide flexibility and/or to widen participation (McPherson, 2003). Thus, benefits from e-learning for learners, tutors and organizations alike, which have also been discussed by a number of other authors such as Nunes and Fowell (1996) and Eisenstadt and Vincent (1998), could be summarized as follows:

- Electronic distribution of course material;
- Flexibility for learners – when to study, at what place;
- Supporting different learning styles;
- Accommodation of different ability levels;
- Establishment of communication between learners and tutors;
- Engendering contact between learners;
- Greater access to information;
- Greater flexibility in maintaining and up-dating course documentation.

Many questions why there is still reluctance to make use of e-learning, and educationalists continue to debate the most appropriate use of technology in teaching and learning. Reeves and Hedberg (2003) believe that most e-learning environments remain mired in outmoded educational methods. They feel that the effectiveness of technology in any learning environment depends upon the degree that it supports appropriate “pedagogical” dimensions. Another problem is that although many educationalists are expert in their subject area, they are as yet relatively inexperienced in methods for online teaching and learning (McPherson, Nunes and Zafeiriou, 2003). Additionally, many students are as yet also ill-equipped for the demands of e-learning (Nunes, McPherson and Rico, 2000). This being the case, the question must be asked whether e-learning can be successful.

According to Noe (2005), are such factors limiting the use of e-learning: cost, lack of motivation among employees to learn online, lack of management buy-in, lack of employee intranet access, lack of proof concerning return on investment, lack of high-quality content.

E-learning technologies can be described as comprising the underlying infrastructure and software specifically adapted for learning, and it is obvious that unless attention is paid to such issues, the whole e-learning concept falls apart. Technologies for establishing e-learning generally fall into these main categories:

- Underlying technical infrastructure;
- Universal work stations (for learners and tutors, this usually means a Multimedia PC equipped with a web browser);
- ICT's which enable widespread learner networking and access to the web;
- Software tools which enable educationalists to author and deliver usable courses.

E-learning or online learning refers to instruction and delivery of training by computer online through the Internet or the Web. E-learning includes Web-based training, distance learning, and virtual classrooms; it may involve a CD-ROM. E-learning can include task-based support, simulation-based training, distance learning, and learning portals. In this paper we pay on prior on distance learning which is shortly introduced in the next chapter.

2.2. Distance learning

Distance education is the relationship based on a dialogue, structure, and independent decisions and mediating technologies (Moore et al., 1990). These studies are characterised by the following distinctions (Keegan, 1986):

- Separation of the teacher and student;
- Influence of an education institution on planning and preparing learning materials;
- Use of technical and information technologies; double-way communication; the possibility of unplanned seminars;
- Participation in applying the most technically developed education.

Having analysed distance-learning distinction, it is possible to highlight its advantages and disadvantages (Ciarniene and Kumpikaite, 2005), which is give in Table 1.

Table 1 Advantages and disadvantages of distance learning

Advantages	Disadvantages
<ul style="list-style-type: none"> • Possibility to get engaged into lifelong learning and develop irrespective of time and place. • Possibility to learn at a learner’s pace and according to his/her abilities and demands. • Learning expenses are reduced. • Teaching material is easier understood using multiple terrains. • More rapid innovations and achievements dissemination. • Cooperation among different institutions in managing studies, common projects, research. 	<ul style="list-style-type: none"> • Studies based on contemporary technologies require considerable investments. • Creation of modern means is expenditure-consuming. • Not all students afford to use a computer and the Internet. • There can arise technological incompatibility. • Teachers’ positive approach to distance education, adequate knowledge and qualification is a must. • New technologies require computer literacy, foreign languages. • Lack of social contacts.

The main features of distance learning and comparison with e-learning is provided in Table 2.

Table 2 Comparison of E-Learning and Distance Learning

Training methods	Learning Outcome					Learning Environment				
	Verbal information	Intellectual skills	Cognitive strategies	Attitudes	Motor skills	Clear objective	Practice	Meaningfulness	Feed-back	Observation and interaction with others
E-Learning	Yes	Yes	Yes	Yes	No	High	High	High	High	High
Distance Learning	Yes	Yes	Yes	No	No	Medium	Low	Medium	Low	Low

Distance learning, being part of e-learning, is not so important itself without other parts of e-learning (see Learning Environment part in Table 2).

3. Students’ attitudes to e-learning: results of empirical researches

The results connected with e-learning from 2 surveys in Lithuania are presented in this chapter. First of all results about students developing means are presented in Figure 1. 344 students participated in this survey.

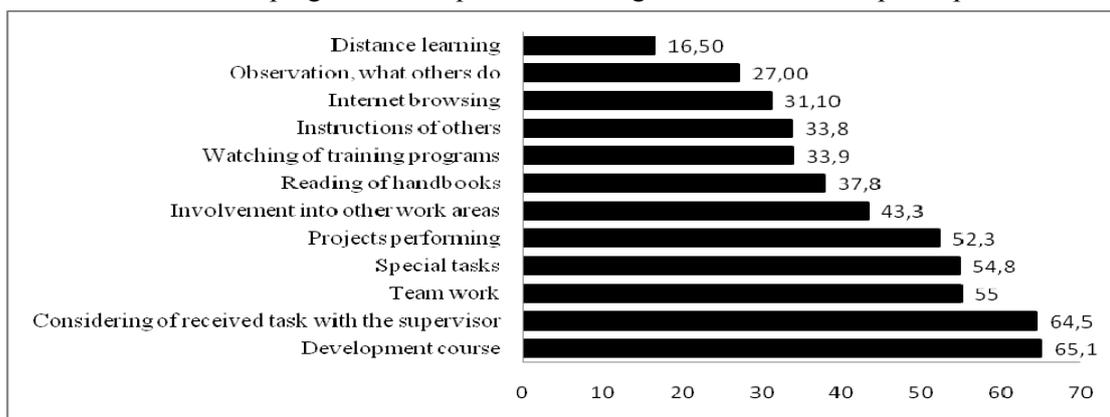


Fig.1: Students developing means, in percent.

Speaking about distance learning studies it was found that 53% of all respondents used Moodle, 24% - WebCT and 6% other platforms of distance learning. 28% of respondents never used any distance learning in their studies. Moreover, just 16.5% of students selected distance learning as the most developing mean for them. However 31.1% students are developed by Internet browsing a lot.

Asking about problems students faced when studying in traditional way it was depicted that study rate (42%), adjustment of work and studies schedule (32%) were the most important for students.

Students selected following advantages of distance studies (see Figure 2). As the most advantages they selected that distance studies allow to choose learning time, place and scale (49%) and that there is no need to move from a living place and work (48%). As the least important advantage the choice of the field of studies was selected and immediate feedback to the learner.

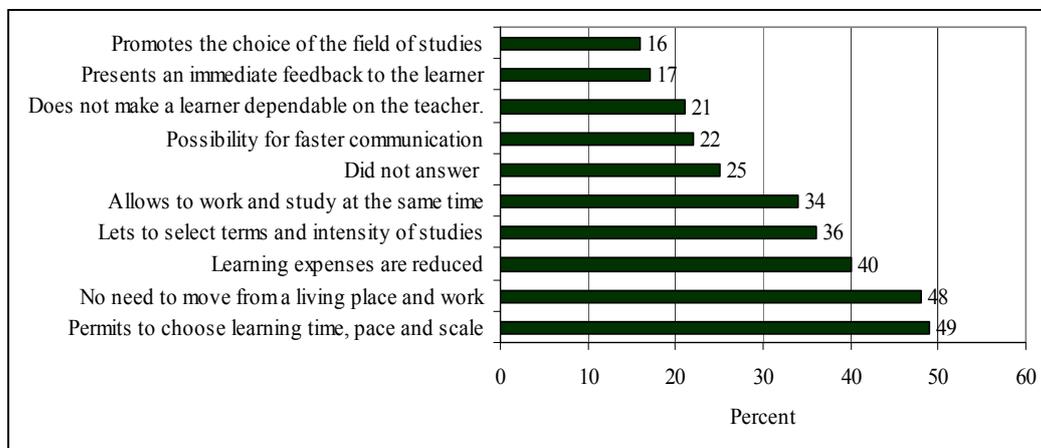


Fig.2: Advantages of distance learning, in percent.

Students also were asked about study ways they preferred. Most of all respondents (64.2%) would like to use blended way of studies. It is because of advantages of Traditional way (63.0%) and advantages of Distance way (36.0%). Ciarniene et al. (2011) describe more results from this survey.

In Figure 3 results from the other survey about students' usage of IT technologies in study process are given. 510 Economics, Management and Finance university students from Lithuania participated in this poll. The survey was provided in April-May of 2011. Results of computer use for studies every day shows the most popular are chat means such as Skype or MSN messenger which allow to communicate writing and speaking and to share files. 73.2 % of respondents use it every day in their studies.

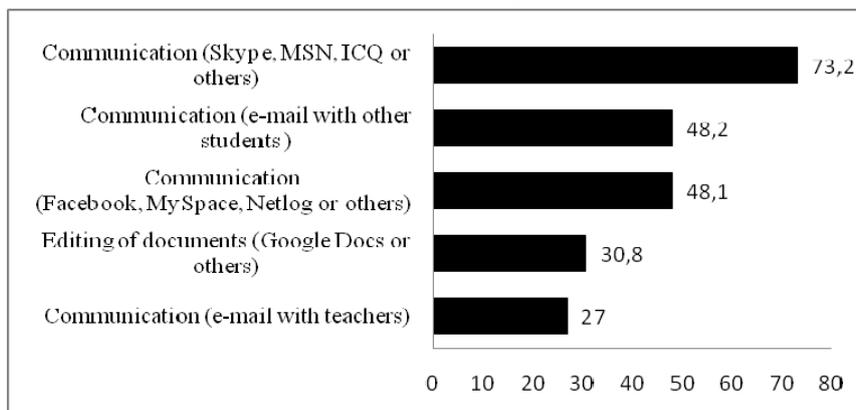


Fig. 3: Reasons of students' IT use almost every day in study process by percent.

Results also showed that 51.8 % of respondents never and 21.2 % almost never use university's e-mail account. And have one system at university all information about studies go through this system and is sent to students' university e-mail accounts. However it means that more than a half of students don't follow this information. Kumpikaite and Duoba (2011) describe more results from this survey.

4. Conclusions

Summarizing we can say that information technologies have introduced a new set of educational opportunities for educators and students. The literature review highlighted that e-learning has potential advantages over more traditional training and development methods. Yet it was also noted that the adoption

of new technology for training and development purposes is not a straightforward process and some degree of resistance to its introduction can be anticipated in organisations. As empirical research showed, the most of respondents use IT for their studies every day. They apply information technologies mostly for communication, searching and editing documents.

Finally, we can state that e-learning play important role in study process. However, even the biggest part of students already have enough experience in distance studies, they would prefer to choose blended way of studies.

5. References

- [1] R. Ciarniene, V. Kumpikaite, M. Vienazindiene. Changes in study process: issues of information technologies. *Economics and Management*. 2011, 16: 683-689.
- [2] R. Čiarnienė, and V. Kumpikaitė. Developing knowledge society: new approach to managerial-economic preparation of specialists. *Inžinerinė ekonomika-Engineering economics*. 2005, 1 (41): 52-58.
- [3] M. Eisenstadt, and T. Vincent. *The Knowledge Web: Learning and collaborating on the net*. London, Kogan Page, 1998.
- [4] R.H. Jackson. Defining e-Learning. [Online], 2002. Accessed at: http://hkwebsym.org.hk/2002/jackson_quote.html.
- [5] D.Y. Keegan. *The Foundations of Distance Education*. London: Croom Helm, 1986.
- [6] V. Kumpikaitė, and R. Čiarnienė (a). New training technologies and their use in training and development activities: Survey evidence from Lithuania. *Journal of Business Economics and Management*. 2008, 9(2): 155-159.
- [7] V. Kumpikaitė, and R. Čiarnienė (b). New training technologies developing human resources. *Economics and management*, 2008, 13: 368-373.
- [8] V. Kumpikaite, and K. Duoba. Is it Possible to Implement Cutting-Edge Technologies into Study Process? *Proceedings 9th International Conference of Knowledge, Economy & Management*, Jun 23-25, 2011, Sarajevo, 2082-2090.
- [9] M.A. McPherson. Planning for success in e-learning in HE: a strategic view, in F.Jakab and A.Cizmar (eds). *Proceedings of the 2nd International Conference on Emerging Telecommunications Technologies and Applications and the 4th Conference on Virtual University (ICETA 2003)*, 11-13 September 2003, Kosice, Slovak Republik, 449-452.
- [10] M.A. McPherson, J.M. Nunes, G. Zafeiriou. New tutoring skills for online learning: are e-tutors adequately prepared for e-learning delivery? in A. Szucs, E.Wagner and C. Tsolkidis (eds). *Proceedings of 12th European Distance Education Network Annual Conference on The Quality Dialogue; Integrating Quality Cultures in Flexible, Distance and eLearning (EDEN 2003)*, 15-18 June 2003, Rodos Palace Hotel, Rhodes, Greece, 347-350.
- [11] M.G. Moore, M.M. Thompson, A.B. Quigley, G.C. Clark, G.G. Goff. *The Effects of Distance Learning: A Summary of the Literature*. Research Monograph No 2. University Park, PA: Penn State University, 1990.
- [12] R.A. Noe. *Employee Training and Development* (Third Edition). The McGraw Hill, 2005.
- [13] J.M. Nunes, and S.P. Fowell. Hypermedia as an experiential learning tool: a theoretical model. *Information Research*, 1996, 2 (1). [Online]. Accessed at: <http://informationr.net/ir/2-1/paper12html>
- [14] J.M. Nunes, M.A. McPherson, M. Rico. Design and development of a networked learning skills modules for web based collaborative distance learning. *Proceedings of 1st ODL International Workshop*, 2000, Universidad Politecnica de Valencia, centro de Formacion de Postgrado, Valencia, Spain, 19-21 July 2000, 117-131.
- [15] T. Reeves, and J. Hedberg. *Interactive Learning Systems Evaluation*. Englewood Cliffs, NJ, Educational Technology Publications, 2003
- [16] D. Stamatis, P. Kefalas, T. Kargidis. A multy-agent framework to assist networked learning. *Journal of Computer Assisted Learning*. 1999, 15 (3): 201-210.
- [17] J. Waller, and J. Wilson. *E-learning definition*. 2003. [Online]. Accessed at: <http://www.odlqc.org.uk/odlqc/n19-e.htm>