Use of E-Learning Support For Education at University

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Abstract

The paper is devoted to the issue of the use of e-learning support in educational process at the university. E-learning resonates in recent years as the current and increasingly used method of education. E-learning as a new didactic method enables not only distance form of education, but also provides new opportunities for other forms of education. Universities in the Slovak republic shall be adapted to new incoming trends in the information and communication technologies and education. Characteristic for the universities is the use of e-learning in combination with classic education, so called blended learning in order to increase the effectiveness of teaching.
The paper includes the advantages and disadvantages of e-learning, the comparison of classic form of education and e-learning. This paper deals with the results of the survey, which was conducted among the students of the first and second year of Master's degree at the University of Žilina. The survey was carried out through the questionnaire in electronic and written form. The survey consists of the analysis of the current state of e-learning at the University of Žilina. The survey is focused on the real perception and use of e-learning at the University of Žilina, what tools of e-learning are used, whether the students are satisfied with e-learning at the University of Žilina.

1. Introduction

We are in the era of digital education, which is typical for transition interactive learning. Today's students do not want to be merely passive recipients of information, they want to be active participants in learning. The contemporary world requires students to be able to work in teams, think critically and creatively and be able to reflect on their own learning. Education and learning with the support of electronic media, or with the support of information and communication technology (ICT) is changing the world. In addition to traditional forms of education, based on direct contact with the student and teacher in the classroom, there are also new forms of learning. E-learning support education found a place at university. A survey of its use is given below.

2. Advantages and disadvantages of e-learning

E-learning as a new didactic method allows not only distance form of education, but also provides new opportunities for other forms of education. The teacher becomes the creator of educational documents with a specific mission - the quality of full-time study to transform the purpose of preparing electronic documents using all forms of presentation. It is a method of education through which you can effectively operate in more senses through the combination of multimedia, interactive animations and visualizations. To operate with a clear vision of the text by visual documentation, photographs, video demonstrations. On hearing with music samples and reading words.
Mass introduction of e-learning is undoubtedly motivated by many benefits this system offers to all stakeholders. Most important of these advantages can be summarized as follows:

- learning of independence from place and time - courses are available 24 hours a day to all students regardless of their geographical location,
- on individual pace of study - speed of study is up to each student according to his ability,
- the cost savings - savings of direct costs of publishing and distributing textbooks and indirect costs to commute to study,
- the possibility of using multimedia and interactive content - courses can create a fun and interesting way using the multimedia content such as video, audio or through interactive models,
- the immediate checking the lessons learned and feedback
- a effective communication between teachers and students,
- a quick access to information.

Of course, even the best prepared e-learning is not appropriate for all groups of students, always and everywhere. The main disadvantages may include:

- a high initial investment to hardware and software,

- a cost of staff training,
- a technophobia or insufficient computer skills,
- inadequately solved a issue of the protection of private rights.[6,7]

To obtain higher education degree only through e-learning is currently in Slovakia almost impossible. As only college in Slovakia this possibility for several years offered one private college. Teaching takes place in the so-called. virtual classes several times a week, with a maximum capacity of 15 students. In addition to on-line discussions are accompanied by training videos, presentations, on-line tests and interviews via Skype. The web interface allows students to view their curriculum and signs throughout the school year. [5]
Higher education institutions Slovak Republic, however, adapted to an newly incoming trend of in ICT and education. In order to increase the effectiveness of teaching is distinguished by the use of e-learning in combination with classical education, so called blended learning. The final LMS selection is influenced by a number of criteria and requirements, which vary for each individual institution. After examining the websites of Slovak universities was an interesting finding that 13 out of 35 schools using LMS Moodle. The system was applied in institutions such as the University of Zilina, Comenius University in Bratislava, Slovak Technical University in Bratislava etc.
The main reason is certainly the fact that it is an open-source system which greatly saves costs. For additional reasons could be marked its flexibility, ease of use, accessibility, uncluttered user interface and ease of the technology. Many colleges are combining LMS and added their own software solutions. They are largely used by university information systems that support only administrative activities (e-application form, writing articles, log on tests) as AIS and MAIS.

3. Use of e-learning in University of Zilina

University of Žilina put into operation an integrated information system, which also includes e-system for e-learning. It is a centralized system, using the single classifiers and a single database. Relevant departments – rector´s office, faculty offices, and scheduling department etc. are responsible for updating data. The integration of the subsystems is provided by the university intranet. Users are students, teachers, faculty management etc. Users are available only to those data and functions that are necessary for their performance. Access is provided via a web page of the University. They are used here as a data structure:

- university classifiers,
- candidates database,
- students register,
- personnel database,
- information sheets on objects.

Functions of the system are:

- student - selecting objects, access via password to the registered subject, access to the results, the test log, enter the LMS and evaluation of products,
- teacher - via password access to their own folder, access the LMS, placement information for students in the LMS, the writing test dates, enter results, access to course evaluation by students,
- management - obtaining information on the use of e-learning, access to individual subjects according to their responsibilities a given subject,
- administrative clark - keeping register of personal data, study programs, commissioning and correction of study results, writing to higher grades, and so on.,
- operating officer - maintaining system functionality, communication with other users, the system has to inform about the problem, change the system,
- other functions are administration of user accounts, management of smart cards etc

The university system can distinguish two logically separate circuits. These use a single database. In the first circuit are comprehensive data on student functions for updating and maintenance of data, printing reports, generating statistics, and so on. The second area is of managed data and functions for e-learning. Provides access to the LMS (Moodle), dates writing of tests, log on tests, evaluation of subjects, study results, and so on. [1]

4. Survey of the use of ICT

The survey consists of an analysis of the current state of e-learning at the university. We conducted a quantitative survey to real perception and use of e-learning in the environment of the University of Zilina. The target group were full-time students of the first and second year of Master, respectively. Master's degree at the University of Žilina. One hundred respondents participated in the survey. The survey was conducted byquestionnaire in electronic and written form. The electronic questionnaire was sent to students through social networking and university discussion forum.
The use of e-learning form of education while studying at college was one of the issues for students. It can be concluded that e-learning at the University of Žilina is popular and widespread form of education, as verified by the results of research. Up to 95% of respondents answered positively to the question if they use of e-learnig while studying at university. The introduction and improvement of e-learning form of education in the normal education at the University of Žilina has potential due to significant interest from students. For teachers, although it would mean more work, but for students new form of motivation to training.
Another aim was to find out which tools e-learning students in their study real and most frequently used. Respondents could choose more options, or add your own answer. When assigning this issue has been postulated that the most frequently used tool for e-learning is the ability to log on to the test. Individual answer and their frequency are shown in Fig. 1.

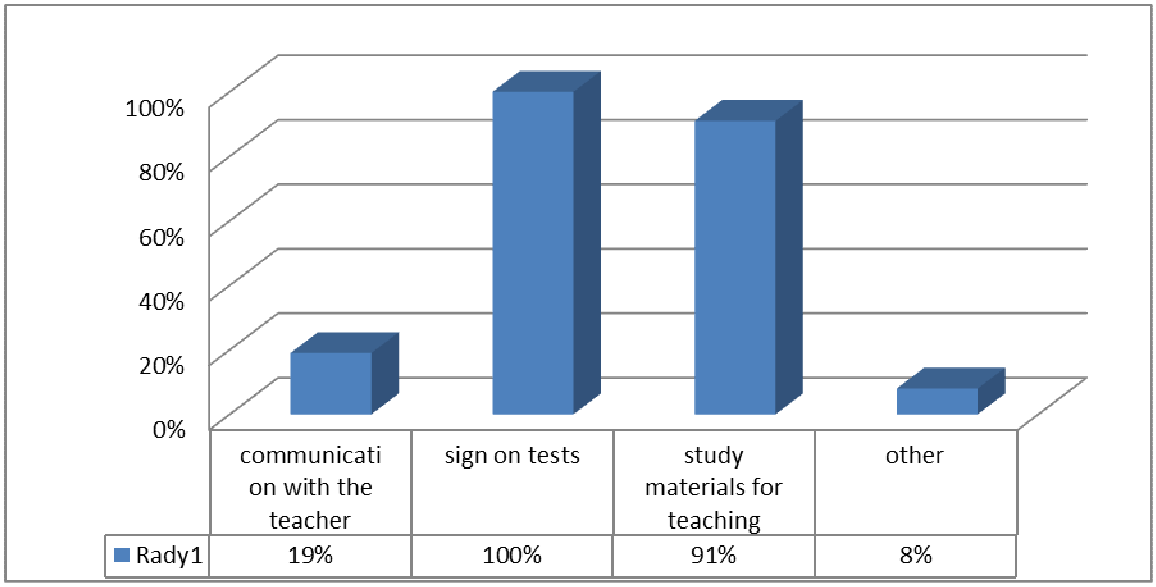

Fig. 1 The most frequently used e-learning tools (Source: author).

Answer chosen by up to 100% of respondents was logging on tests. Integrated e-learning system offers, among others, as well as of the electronic sign-on tests. Teachers publish individual dates with information of time, place and test capacity and enable electronic logging students. The second largest response (91%) were studying materials for teaching. One of the primary functions of e-learning is to make learning materials in electronic form. Materials added to the teacher, and may be formatted or unformatted text, images, videos, sound recordings, and so on. For example, for area of study Protection of persons and property, and Postal engineering are available to students materials for practically all subjects. E-learning to communicate with the teacher only uses nearly one-fifth of questioned students. Although the system allows you to contact the teacher directly or by sending a message via the blog, students prefer to communicate via e-mail or in person during consultation hours. As further tools respondents reported completion of tests and trials or transfer contract and term papers.
The question on the reasons of dissatisfaction with e-learning has been designed mainly to respondents who indicated that they are satisfied with e-learning. Respondents were offered several answers to the select multiple options. Students, despite the fact that they are satisfied with e-learning, consider the lack of that study materials are too short and there are not as many as they need. The text and the frequency response is shown in Figure 2.
The most the indicated the source of dissatisfaction, as is clear from Figure 2, there was a lack of materials needed to study published in the form of e-learning. The reason stated 81% of questioned.

Followed by answers, poor quality ", which said 47% of respondents and just behind it, too short form" with 41%. The reason, lack of understanding of materials' said only 6% of questioned.
Other questions answered for example, that e-learning would change anything and are satisfied with it 47% of respondents. The most frequent change that students require the involvement of all teachers to e-learning. The present proposal is also related comment to make a larger number of study materials from all teachers, which was welcomed by 15% of respondents.
Students are not satisfied with the appearance of the user's environment. They propose a system to clarify, modernize, add new features and more extensive information sheets for each subject.

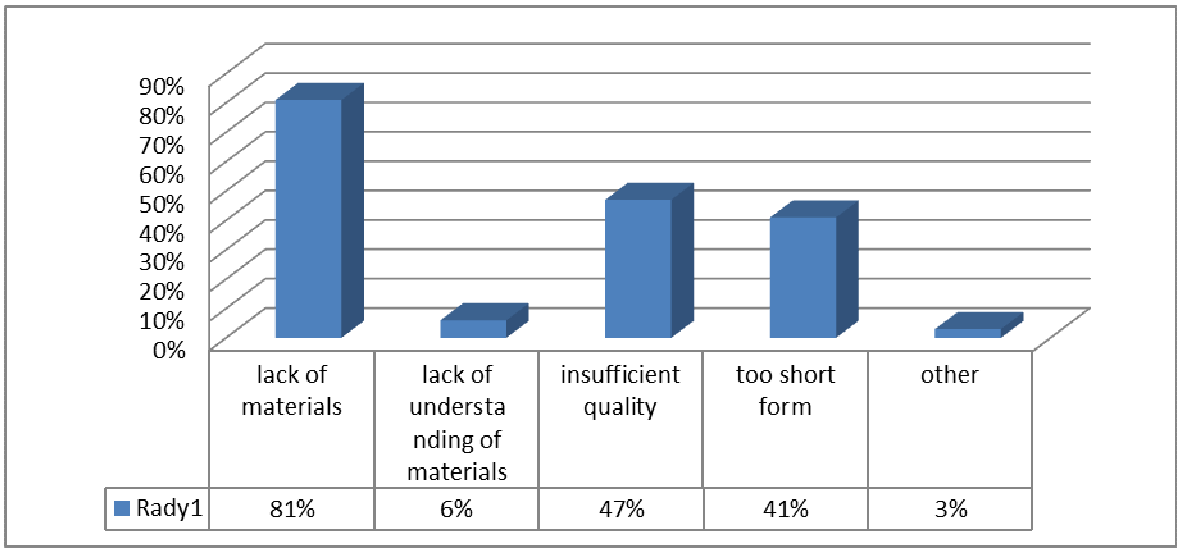

Figure 2 Reason for dissatisfaction with e-learning at ZU (Source: Author).

5. Conclusion

E-learning brings new elements of teaching quality. For a student there are opens up new possibilities for self-directed learning using a variety of materials, the possibility of discovering new knowledge. On the other hand, the teacher offers the opportunity to improve the quality and attractiveness of teaching and creative approach to teaching. We must not forget that the technologies themselves do not ensure quality teaching. Although the role of ICT is important, they need not be overemphasized. The educational process in the information society will not constitute learning process automation without the direct participation of teachers. The student will ever need motivation to study, advice on how to proceed. Technology will not replace teachers, only change their role.
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