

Drawbacks of Implementing e-Learning System in the Teaching Process at the Faculty of Transport and Traffic Sciences

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Abstract. *The introduction and usage of the e-Learning system for distance learning, i.e. learning via the Internet or some other advanced multimedia method, has become an obligation and not just a possibility, in all the educational institutions, in the function of proactive continuous modernization of the teaching process by applying ICT. Although e-Learning is mostly mentioned within the context of learning at the educational institutions, companies are increasingly accepting and introducing distance learning systems.*

Negative effects of the implementation have not been sufficiently studied. It is easy to notice that the past focus of research referred mainly to positive effects on implementing the e-Learning method.

The relatively short period, and the limited number of syllabuses which apply their own developed e-Learning systems at the Faculty of Transport and Traffic Sciences (Faculty), have yielded the realized results of evaluating the implementation. The number of represented subjects in the e-Learning system is continuously growing, and consequently also the number of included students and the teaching staff.

In the carried out surveys among students at the Faculty the majority of students has assessed this method of learning as very useful and a significant advancement in relation to classical learning methods. The assessment of their level of knowledge before using the system and afterwards, has shown significant increase and the students expressed a great wish for further development of the system and implementation of the system into the work of the entire Faculty. A very high percentage of students expressed a desire to introduce this type of studying i.e. learning in all the syllabuses, at all three courses of study at the Faculty. Research and surveys of other faculties and companies involved in the development of e-Learning systems are analogue to the achieved results at the Faculty. For instance, the surveys of the CertiLearn Company

show that as much as 94 percent of students are satisfied or very satisfied with this learning method, that 96 percent of students would recommend this learning method to other students, and as much as 97 percent of students would use this learning method again. The research of the George Mason Faculty has shown that computer-assisted learning accounted for up to 56 percent of results compared to the traditional learning, and the research of the TeamApproach Company gave the results that successful acquiring of knowledge and the level of learned material is up to 25 percent higher compared to classical learning methods.

E-Learning methodology brings significant, already known positive effects which are almost impossible to achieve through traditional learning methods. The usage of e-Learning allows the attendants, i.e. students to learn the subject matter in their comfortable environment and according to the dynamics which they can determine by themselves. The materials necessary to acquire the required knowledge are always available to the students, and the students can determine by themselves which material they want to study and when. Multimedia helps students in acquiring the knowledge in an easier way and the implementation itself of advanced technology and multimedia contents make it more interesting to the students.

With all the advantages offered by e-Learning and the surveys and research that to a high percentage present e-Learning as a very positive learning method, and a learning method of the future, very often the drawbacks are neglected and they need to be studied into detail and a solution should be found.

The research results presented in this paper focus also on a number of drawbacks. As the basic drawback in implementing the e-Learning system at the Faculty has been the need for information technology equipment of each individual student. A large number of available

materials focus on multimedia materials and this results in the need for broadband access network to the Internet, in the function of a high-quality real-time communication between the teachers and the students or among the students themselves, electronic knowledge testing, etc. During the three-year implementation it has been noticed that the way of thinking and the behavior of a certain number of students have remained unchanged, and that the implementation of e-Learning system has brought about an entire series of attempts at fraud in performing the students' tasks. The approach to solving of this problem is very complex and proactive, and ranges from student's authorization, monitoring of students in studying, all the way to defining the time periods reserved for solving the tasks and random selection of the questions during knowledge testing.

Large volume of available materials and the possibility of easy searching, both on the Internet and through the published materials by means of e-Learning system, offers the students the possibility of plagiarism in producing seminar papers, when they try to submit the already published papers written by others as their own. Part of the problem has been annulled by the fact that relatively few people use the domicile language of the students so that the availability of the materials is to some extent limited for the students. Detailed monitoring of the process of writing and submitting of papers and a more innovative model of searching the titles, contents and key words in the papers can partly eliminate this problem. Creating of an electronic folder that would include all the relevant data on the student may significantly contribute to reducing the possibility of fraud in the system. The absence of interaction between the student and the teacher and other students leads to the feeling of isolation. It is much more difficult to realize group-work by using the e-Learning system than in traditional working with a group of students in a lecture hall. With the development and implementation of collaboration systems such as forums or exchange of real-time and e-mail messages as well as through video-conferencing the student's

feeling that the computer is the teacher and that the student is isolated may be reduced.

For higher-quality education of students using the e-Learning system, the system needs to be continuously upgraded and improved. The reduction in the number of plagiarized papers will be achieved by introducing new models, and by adapting the old ones, data mining from the databases and e-Learning system documents. This type of the system upgrade will result in reduced engagement of the teaching staff in search of plagiarized papers leaving thus more time to spend on better mentorship in working on the papers.

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