Integration period of e-learning in universities: A survey in Turkey

Fazli Yildirim

(Information Systems and Technologies Department, Okan University, Tuzla-Istanbul 34959, Turkey)

Abstract: E-learning is an important subject for successful university education. It is known that during the integration period of e-learning, universities face difficulties and trade-offs that will discourage their adoption. This study concentrates on e-learning with benefits and problems faced throughout the integration period by stakeholders and finally the university as a new education program method. Our aim is to look at the factors which affect the integration period of e-learning programs and measure the drivers that affect the adoption process. The research method is based on quantitative analysis which generally searches information about the factors’ effectiveness related to the integration level of e-learning. During the empirical analysis, factors are categorized and measured according to their effectiveness, and then questionnaire study has examined the factors’ effectiveness related to the adoption success of e-learning by using statistical analysis methods. The information about the factors that is effective for e-learning integration provides considerable educational framework for universities, instructors, students and also for information technology experts and other decision makers that manage the electronic environment for e-learning.

Key words: e-learning; e-learning integration; university education system; distance education; virtual class

1. Introduction

New way of education which is called e-learning begins to boost with the increase of spread Internet usage, and e-learning becomes an important step for successful university education. Integration period of e-learning in a university is highly critical for stakeholders, students, instructors and finally the universities as a new education program method, because if the framework of e-learning in universities did not set successfully or integration barriers did not exceed, then e-learning will cause disappointments. On the other hand, there should be an e-readiness for these kinds of applications to use these kinds of programs. The management approach is another concern to create and apply these kinds of programs. Shortly, there are some managerial, psychological, technical and economical borders for these unique advances general, institutional and personal environments trilogy. This study concentrates on e-learning with benefits and problems faced by seeking the factors which affect the integration period of e-learning programs and measuring the drivers that affect the adoption process.

There are recent works that define the benefits of e-learning that helps us throughout the research, for example, Kruse defined the benefits as follows: Along with the increased retention, reduced learning time, and other aforementioned benefits to students, particular advantages of e-learning include:

(1) On-demand availability enables students to complete training conveniently at off-hours or from home;
(2) Self-pacing for slow or quick learners reduces stress and increases satisfaction;
(3) Interactivity engages users, pushing them rather than pulling them through training;

Fazli Yildirim, assistant professor, vice head of Information Systems and Technologies Department, Okan University; research fields: e-commerce, b2b, b2c, e-learning, m-government, e-government, mobile applications.
(4) Confidence from available refresher or quick reference materials reduces burden of responsibility of mastery (Kruse, 2004).

Also, other benefits of e-learning are that with the using of e-learning, training costs are reduced, in less time a great number of participants are provided in order to train, and participants can access and study their own lessons every time or everywhere by using e-learning (Pek, 2009).

With the advance of technological development, students have started to reach information everywhere and every time. These features attract students to use e-learning education instead of teacher-centered education. In addition to this, teacher-centered education and education which is based on curriculum are inadequate to express active and complex systems in terms of students. In addition, some students have different backgrounds, characters, learning styles because while one student is learning a subject quickly, another may learn it slowly. Thus, targeted levels cannot be accessible by using classic method because this method is not enough for efficient learning (Baki, 2000; Schmid, 1997).

Internet and web applications contribute to solving problems and supplying demands in education. Prepared materials like software based or the interactive study materials are presented to students by receiving feedback with the increasing importance of the web. For this purpose, the different design applications on the web can be grouped under a single interface thus, this feature is playing an important role in reaching large audiences (Ekiz, Bayam & Unal, 2003).

While focusing the benefits, the other factor called the barriers should be examined carefully. Karaagacli underlines an important barrier as follows: In distance education, face-to-face communication which is severely important in educational and social objectives neither or merely occurs (Karaagacli, 2008). Moreover, we can emphasize that since students work by own, there is almost no face-to-face communication with classmates and instructor. Although, social interaction occurs during chat and virtual classes, it cannot be compared with social interaction in face-to-face communication (Kreijns, Kirschner & Jochems, 2003).

Throughout the research, we have faced surveys that form similar factors for measuring the e-learning results, especially focusing on the benefits and the barriers of e-learning. For instance, the survey named “what drives a successful e-learning? An empirical investigation of the critical factors influencing learner satisfaction” is one of them that underline the relationship between learners, instructors, courses, technology, design and environment with e-learning adoption success. Course quality, instructors’ attitude, framework, e-learning course flexibility, e-learning course quality, perceived usefulness, perceived ease of use, and diversity in assessment are the critical factors affecting learners’ perceived satisfaction (SUN, Tsai, Finger, CHEN & Yeh, 2008).

At the first step, we have tried to minimize the large number of factors for the purpose of understanding the e-learning concept more successfully. In point of fact, there are not sufficient numbers of empirical evidences related to the factors that affect integration period of e-learning in Turkey. This study is one of the initial studies for e-learning integration for the newly e-learning adopted universities.

Our aim is to look at the factors which affect the integration period of e-learning programs and measure the drivers that affect the adoption process for increasing the success of e-learning integration. The research method is based on quantitative analysis which generally searches information about the factors’ effectiveness related to the integration level of e-learning. During the empirical analysis, factors are categorized and measured according to their effectiveness and then questionnaire study has examined the factors’ effectiveness related to the successful adoption of e-learning by using statistical analysis methods.

The information about the factors that is effective for e-learning integration provides considerable
2. Method

Data is collected from the students in Okan University which starts to use e-learning education method for history, e-business and operating systems lectures. Answers to the questionnaire will be collected by online web page survey. The sample size is 125 and there are 51 questions in the questionnaire. Questionnaire aims to collect information about the barriers and benefits of e-learning education systems. The questions can be grouped into five as follows: barriers, benefits, student based information related to e-learning, students’ requests, lecture materials and e-learning portal based factors. Figure 1 summarizes the relationship between the factors that affect the e-learning usage ratio.

3. Empirical results

According to empirical results, most of the students prefer classical education systems instead of e-learning with the rate of 80 percentages. This result is impressive. But examining the barriers is crucial to understand the reason of this finding, after this examination we will realize the barriers and integration difficulties which cause that situation. Empirical results can be divided into five pieces that cover barriers, benefits, student based information related to e-learning, students’ requests, lecture materials and e-learning portal based factors.

3.1 Barriers

High amount of students do not need help during e-learning online system usages (74%), most of them face log-in problems (54%), lecture registering process problems (59%), joining lecture problems (61%), connection errors of e-learning systems (66%). They believe that e-learning prevents students to enter active social life (79%), on the other hand, they do not believe that e-learning has more varieties of education activities rather than classical education system (84%). At the same time, they do not believe that e-learning creates more spare time (67%). Also, they do not believe that e-learning is more useful (89%) and accessible (77%). Impressively, they can learn faster than the classical education system (88%). Finally, they do not believe chat rooms are useful for entering social life (89%).
3.2 Benefits

Half of the students believe that with the help of e-learning they can arrange learning speed more effectively (42%). Both academic calendar and personal calendars have positive effects on planned studying (38%).

3.3 Student based information related to e-learning

Most of the students use e-learning education system for the first time (82%), they are not willing to use laboratories in Okan University to connect e-learning system and believe that connection speed in their houses are at satisfactory level (51%).

3.4 Students’ requests

Most of them want to video conversation online tool on the system (58%). The majority of the students do not want to use e-learning system again (84%) or attain other lectures on e-learning system (84%). Nearly half of the students want to join online exam (49%) and half of them want to join exam on paper (51%). Approximately, they want chat rooms related to lecture subjects (60%).

3.5 Lecture materials and e-learning portal based factors

More or less, half of the students believe that lecture materials on e-learning system are adequate (46%) and visually satisfactory (52%). A large amount of students believe that video and simulation materials will help them to learn more effectively (78%) and chat or virtual rooms are not adequate (79%). They prefer virtual rooms instead of chat rooms (63%) while needing to establish physical face-to-face conversation with the instructor of the related lecture (85%). Data results show that they could easily informed by the announcement of the lectures on the system (57%) or Okan University web site (56%) or the e-learning page on the web site (49%). Most of the students believe that tests are useful for learning (57%) and are related to lecture content (67%). Searching tool on the system works properly (50%). Almost, half of them are pleased for searching results section (43%) and automation system tool of password creator with 45 percentages. Close to 45 percent of students believe that syllabus give adequate information of lecture content. More or less, students are not satisfied with the answers of asked questions about their e-learning instructors with 58 percentages. Nearly half of them believe that frequently asked questions sections are useful (41%). Students are not satisfied with feedback forms (62%) and complain for the inadequate answers (67%). Results show that they could get messages from their instructors properly with 64 percentages and they believe that they do not get effective results from lecture by using forums on the e-learning systems (56%), and forums do not make the e-learning system more useful (77%).

4. Conclusion

Empirical results underline that most of the students prefer classical education systems instead of e-learning with the rate of 80 percentages when we examined the five factors such as barriers, benefits, student based information related to e-learning, students’ requests, lecture materials and e-learning portal based factors. We faced the situation that students were highly affected by the barriers of e-learning and did not informed about the benefits of e-learning education system; also results are the reason of inadequate orientation of e-learning students. High amount of the barriers that prevent students to integrate e-learning system are based on the framework of the system, log-in, connection and helpdesk problems. Students request to get more support from the instructors, especially they need face-to-face conversations or more online support, underlining the similar results with a research named “students’ expectations of, and experiences in e-learning: Their relation to learning achievements and course satisfaction” by Paechter (Manuela, Brigitte & Daniel, 2010). Besides the barriers, lecture materials
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and e-learning portal based factors are not at satisfactory level according to students which let them integrate e-learning education system.

The first impressions about the results are not so pleasant, but we must admit that students resist changing for the classic education system, and results prove that they want more interactive education system and rich lecture content, and most of them are happy to be organized and planned with the help of e-learning system. Overcoming the framework problems and the barriers of e-learning will increase the ratio of e-learning integration success. Also the results are similar with the research named “What drives a successful e-learning? An empirical investigation of the critical factors influencing learner satisfaction” focusing the technologies’ importance and course quality (SUN, Tsai, Finger, CHEN & Yeh, 2008).

The next semester, with the light of the empirical results, Okan University will focus on the framework problems and the orientation of e-learning system. The next study will show us the framework problems and orientation effectiveness related to the e-learning success; besides, the students will be more adaptive with their secondary usage of the new education system.

References:


