A Study to Investigate the Opinions of Instructors on Mobile Learning

Nadire Cavus

Department of Computer Information Systems,

Near East University, North Cyprus

nadirecavus@neu.edu.tr

Abstract: *The purpose of this study is to find out the opinions of instructors on mobile learning. This study has been carried out at the Near East University, Faculty of Economics and Administrative Sciences, during the Fall 2009 semester. Participants in this study consisted of 40 instructors. In the research, in addition to the information obtained through literature search, a survey was carried out to learn the opinions of teachers on mobile learning. Data were collected using a questionnaire. After that SPSS 16.0 was used to analyze and interpret the collected data. Anova, frequency, paired sampled t-test and percentage methods were used during the analysis process. The results of the study indicate that it is very important for the instructors, who are the key players in education, to follow the recent advances in the field of mobile technologies very closely, and if necessary use mobile learning techniques in their own teaching.*

Keywords: Mobile Learning, Instructors' Opinions, Mobile Technologies, Phone Characteristics

Introduction

Mobile learning means learners can access learning resources at anywhere and anytime with mobile devices (Wang & Li, 2008). Mobile devices like the mobile phone, smartphone or personal digital assistant (PDA) can be used in education and they will change situations and environments. In recent years, cell phones have become one of the fastest growing communication technologies (Campbell, 2006). These tools can be used to connect students, parents, and instructors. There are estimated to be 1.5 billion mobile phones in the world today and this is more than three times the number of personal computers (Prensky, 2004). Mobile phones are now pocket-sized computers and now have many features that are similar to a

computer. At the other hand, mobile phones have the ability to deliver learning objects (lecture notes) and provide access to online systems and services. Prensky (2004) recommended that teachers use them for their educational advantage. Cell phones are now equipped with text messaging, internet, camera features, etc. They are now making their way into the classroom. Because of the many benefits that cell phones offer, teachers could easily use them as a teaching tool. Mobile technologies enable students to learn independent of time and location. Furthermore, mobile communication technologies can prepare more flexible learning environments for learners. Milrad (2004) explained the number of features that mobile technologies have for education: Portability, social interactivity, individuality, context sensitivity, connectivity, merging digital and physical realms. Sariola (2001) indicated that characteristic of mobile learning is the opportunity to break away from teaching that takes place in a classroom, and to move to another location via information networks. Lim and Lee (2002), Seppala and Alamaki (2003) underlined that with the help of mobile technologies teachers and students can communicate with each other easily and students can take whole courses from distance (Giunta, 2002; Roberts et al., 2003), reading and accessing course materials (Waycott, 2002; Meisenberger and Nischelwitzer, 2004), taking quizzes and exams (Homan and Wood, 2003; Whattananarong, 2004), playing learning games (Ketamo, 2002), using outdoor activities (Rieger and Gay, 2004), using different activity programs in classroom (Tatar et al., 2003), managing lessons, tracking students' records, and online registration for courses and so on. It is also known that using mobile devices increases attendance to courses, increases collaboration between students, and enhances communication between teachers and students. The results of various researches show that mobile devices can bring new opportunities to education and there is a real need to develop applications and implement them in real life using mobile devices.

Using mobile communication tools will effect the economies of institutions, learners and their families. Mobile communication tools cheaper than personal computers and there is no need for network cables to work with them. Many researchers (Strauss, 2004; Robson, 2004) provided that mobile technologies bring new opportunities to traditional learning in the classrooms and lifelong learning outside the classrooms. Jones et al. (2002) said that using wireless technology, students will be able to view and download outlines of web-lectures, check assignment deadlines and class schedule changes, perhaps even submit work via email. So that mobile asynchronous communication allows participants to share their ideas independent of time and analyze and reflect their ideas before sending to forum (Sheard et al., 2003). At the other hand, the mobile phone has potential as a collaborative learning platform (Attewell & Savill-Smith, 2004). The latest developments in technology allow sending video, audio and images through MMS (Brown, 2003). Thus, their use in education also increases collaborative study opportunities. As can be seen, new technologies such as mobile technologies are introducing a new dimension to education. Instructors should follow the new technologies very closely and they should also make use of the new technologies in their courses. Thus, this study is necessary in order to find out the opinions and angles of view of instructors and also to increase their interests to the new technologies.

Purpose of the Study

The purpose of this study is to find out the opinions of instructors on mobile learning. The study focused on answering these questions:

1- What are the opinions of instructors on mobile learning?
2- Are there significant differences between different genders' opinions on mobile learning?
3- Are there significant differences between the departments of instructors on mobile learning?
4- How do the instructors use various features of mobile phones?

Methods

Participants

This study has been carried out at the Near East University, Faculty of Economics and Administrative Sciences, during the Fall 2009 semester. Participants in this study consisted of 40 instructors. The female participants were 45% (n=18), and male participants were 55% (n=22). 17.5% of instructors were from department of Computer Information Systems (CIS), 17.5% of instructors from department of Business Administration, 10% instructors from department of Marketing, 15% of instructors from department of International Relation, 10% of instructors from department of Banking and Finance, 10% of instructors from department of Economics, 10% of instructors from department of European Union Relations, and 10% of instructors from department of Political Sciences.

Instruments

In the research, in addition to the information obtained through literature search, a survey was carried out to learn the opinions of teachers on mobile learning. The questionnaire "*Instructions' Opinions on Mobile Learning*" was prepared by the author in the form of a questionnaire related to instructors' opinions. Content and validity of questions were investigated by 7 experts (experts of educational technology and information technology) in this field and were found to be satisfactory. The internal consistency of the questionnaire was found to be .80 using Cronbach alpha. The questionnaire consisted of two sections: First section consisted of 6 personal information. The Second section of the questionnaire, consisted of 14 items, was prepared to learn instructors' opinions on mobile learning. All items represented a positive reaction to mobile learning. Respondents rate each item on a 1-5 Likert scale from "strongly agree" (5) to "strongly disagree" (1).

Data Analysis

Data were collected using a questionnaire. After that, SPSS 16.0 was used to analyze and interpret the collected data. Anova, frequency, nonparametric tests(Mann Whitney-U) and percentage methods were used during the analysis process.

Results and Discussion

1- Instructors' Opinions

Table 1 presents the means and standard deviations for each item of the questionnaire. In general, it was observed that the opinions of the instructors on mobile learning were very poor.

Items	Mean	SD
1. Mobile learning studies in education should be followed.	3.20	1.26
2. It will be fun and joyful to use mobile technologies in education.	3.62	1.14
3. Using mobile technologies in education will increase students' success.	3.55	.98
4. The use of mobile learning will increase in the near future.	3.92	1.07
5. Mobile learning does not suit to my teaching style.	2.97	1.42
6. I have sufficient knowledge on mobile learning.	3.57	1.27
7. Mobile learning will be as effective as classical learning.	3.45	1.19
8. The teacher-student relationships are easier in mobile learning.	3.32	1.14
9. It will motivate students if the education is carried out using mobile devices.	3.70	.88
10. Using mobile technologies in education will lower the costs.	3.30	.93
11. Mobile teaching ensures that the teacher is free and independent in time and place.	3.87	.99
12. Mobile learning ensures that students are free and independent in time and place.	3.82	.95
13. Mobile technologies can be used in education.	3.73	1.03

Table 1: Descriptive statistics for questionnaire items

The highest mean of the opinions was recorded on the questionnaire for item 4 "*The use of mobile learning will increase in the near future (M = 3.92)*". The instructors are aware of the importance of mobile learning and this might be the reason why a high mean was obtained for this item. In addition, another reason why the mean was high was probably because the instructors are aware that mobile learning provides teaching independent of time and place. Item 11, "*Mobile teaching ensures that the teacher is free and independent in time and place (M = 3.92)*" and item 12, "Mobile *learning ensures that students are free and independent in time and place (M = 3.82)*" have received positive opinions and because of this, item 13, "*Mobile technologies can be used in education (M = 3.73)*" has also received a positive opinion. But, since the instructors were aware that their knowledge on mobile learning was not sufficient, item 6, "*I have sufficient knowledge on mobile learning (M = 3.57)*" has received a high positive opinion. Nevermore, it is very interesting to notice that Item 1 "*It is necessary to follow the mobile learning studies in education (M = 3.20)*" has not received a high positive opinion. Because they do not have sufficient knowledge on mobile learning, item 5 "*Mobile learning does not suit to my learning style (M = 2.97)*" has recorded the lowest mean. However, if they were aware of the rich resources of mobile learning they would have accepted that the mobile learning can be suited to all types of learning styles. It is obvious from Item 1, "*Mobile learning studies in education should be followed (M = 3.20)*" that because of their lack of knowledge in mobile technologies, this item has scored the second lowest mark in the study.

Gender Differences

The results given in this section are based on the gender's opinion obtained from the questionnaire. In order to find out whether or not there was any statistically significant difference between gender's opinions, Mann Whitney-*U* test was carried out and the results are shown in Table 2.

Gender	N	Mean Rank	Sum of Ranks	U	p
Female	22	19.77	435	182	.677
Male	18	21.39	385		

p>.05

**Table 2:** Mean differences between female and male

According to Table 2, there is no statistically significant difference between genders' opinions on mobile learning. The mean rank of female instructors' opinions on mobile learning was 19.77 compared to 21.39

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for male, a difference that was found not to be statistically significant (p = .677). Similarly, Rees and Noyes (2007) did not find any significant differences between genders' opinions on the use of mobile phones, too. However, Broos (2005) found significant gender differences towards new communications technology.

Department Differences

The total mean opinions scores for instructors' responses to the questionnaire are shown in Figure 1.
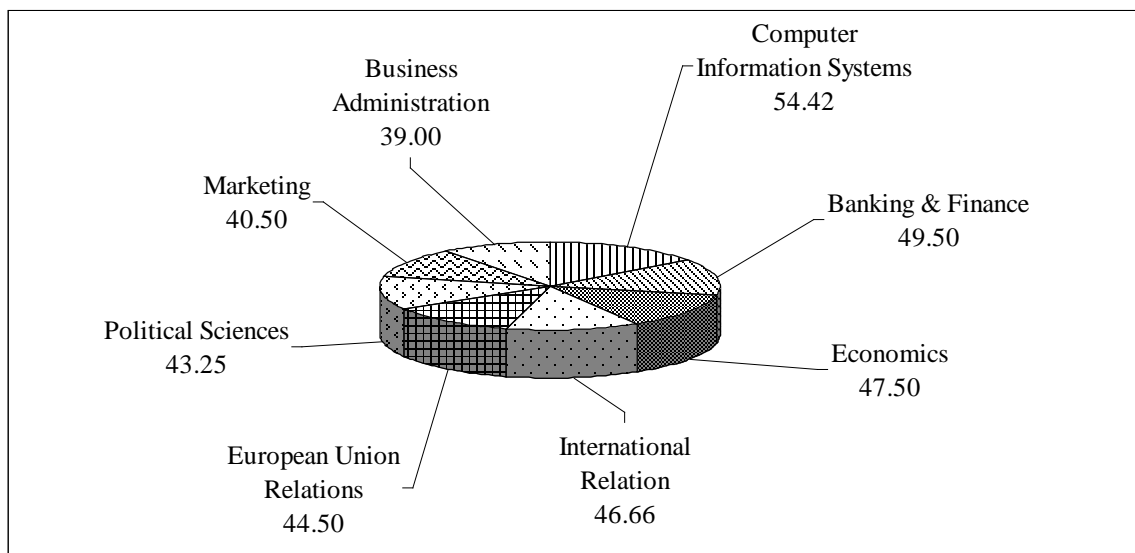
Figure 1: The total mean opinions scores for instructors'

As indicated in Figure 1, there is statistically significant difference between the departments on mobile learning. Computer Information Systems Department's (54.42) instructors have the most positive responses and they have the best knowledge on mobile learning. The second highest mark is obtained by the Banking and Finance Department (49.5%). Then follows the Economics Department (47.50%). The department scoring the lowest mark is the Business Administration Department (39%). Cavus and Ibrahim (2009) underlined that most teaching members of the Computer Information Systems Department were interested with their study. They highlighted that when the positive results were announced, colleagues showed an interest by asking questions to find out more about the study, and also discussed the possibility of using similar tools in their own lecture sessions. Furthermore, Cavus, Bicen and Akcıl's (2008) study has been carried out at the Near East University (by information technology students) in order to find out the opinions of students on mobile learning. The result of the study was that the information technology students seemed to have high knowledge on mobile technologies, and they expressed interest for mobile

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learning to be used in their classes as well. The studies which were carried out at the same university show that the instructors in the CIS department had more positive opinions on mobile learning than the instructors in other departments of the university.

State of the features of mobile phone use

As can be seen from the Table 3, all of the features of mobile phones can not be used effectively by instructors. Instructors seem to use mobile phones mainly for talking with others. In fact, this is a natural result. Subsequently, instructors use mobile phones for sending SMS (80%), alarm (72.5%) and taking photos (67.5%). Looking at the data, it is clear that using internet communication tools such as checking e-mail (30%), sending MMS (25%), filming video (32.5%) and searching on the Internet (20%) although useful, are not sufficient for mobile learning. Instructors' use of these features was not satisfactory because their views against mobile learning could be considered to be weak.

Mobile Phone Characteristics	Percentage (%)
Talking	100.0
Sending SMS	80.0
Alarm (Reminder)	72.5
Taking photos	67.5
Taking notes	37.5
Listening to music	32.5
Filming Video	32.5
Checking E-mails	30.0
Sending MMS	25.0
Searching on the Internet	20.0
Playing games	17.5
Using Social Sharing Sites (Facebook, Hi5 vs.)	15.0

Table 3: Used mobile phone characteristics

Conclusion

Increasing collaboration between students, ubiquitous communication, increasing attendance to courses, increasing motivation and time and location independence will be major advantages of mobile communication tools. Mobile learning can be used to encourage both independent and collaborative

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learning experiences. Numerous studies have been reported that mobile learning is to be very useful for both instructors and students (Virvou & Alepis, 2005; Cavus & Ibrahim, 2009). Nonetheless, mobile learning is unique in that it allows truly anywhere, anytime, personalised learning. Strauss (2004) and Robson (2004) call attention to mobile technologies bring new opportunities to traditional learning in the classrooms and lifelong learning outside the classrooms. As a result of this, it has become very important that the instructors, who are the key players in education, should follow the studies in the field of mobile technologies very closely, and if necessary use mobile learning techniques in their own teaching. It is the author's opinion that it will be very beneficial if the instructors are taught (e.g. by seminars, courses, meetings etc) about the advantages and the use of mobile technologies in teaching.

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