

## **A Study on the Attitudes of Prospective Science Teachers towards the Effects of Mobile Applications and Information Services in Distance Education**

**Volkan Şenay<sup>1</sup>, Malik Yılmaz<sup>2</sup>, Burcu Aydemir Şenay<sup>3</sup>  
and Ayşenur Güneş<sup>4</sup>**

<sup>1</sup> Research Assist., Bayburt University, Education Faculty, Primary Science Education Department

<sup>2</sup> Asst. Prof. Atatürk University, Faculty of Letters, Department of Information and Records Management

<sup>3</sup> Research Assist., Atatürk University, Faculty of Letters, Department of Information and Records Management

<sup>4</sup> Research Assist., Kastamonu University Faculty of Arts and Sciences, Department of Information and Records Management

**Abstract.** Today, technology is an essential part of human life and use of the technological devices has rapidly increased. Mobile technology products most often used among the technological devices (smart phones, tablets etc.) offer an opportunity for individuals for easily access to all kinds of information they want without a time and place limit. Mobile technology products previously used as a communication device, today, catch the attention of individuals and/ or institutions not only for this purpose, but also making its presence felt in many fields such as trade, education. in the traditional education, also in the distance education, the effect of the information centers and services is important for the information access and sharing of the users to reach to the high level. The presentation of the information resources by the information centers by being digitalized to the users of them is undoubtedly an advantage for the users receiving the distance education. In this study, the description of the opinions of the prospective science teachers concerning the mobile applications and information services in the distance education has been aimed. The sample of the research is composed of Bayburt University and Kastamonu University Primary Science Education Department third class students

### **1. Introduction**

Distance education is a presentation system of the training activities to the students in different environments without a time and place limit via information and technological based devices such as computer, internet and

computer softwares. In other words, distance education could be defined as a learning method continued using the technological devices mentioned above in the circumstances that carrying out the face to face training techniques and/ or activities are difficult. Applicability of the distance education method is dependent on completely application of the software and hardware components of the distance education. Today, in parallel with the rapid and constant development of technology, the distance education has started to be applied with the mobile technology and gradually become widespread. It is seen that the prominent mobile applications in the distance education at the international level has become widespread also in Turkey. Thus, it is observed that the serves suitable for the mobile operating systems such as android and IOS that mobile applications could operate in many universities offering the distance education service.

## **2. Mobile Applications In Distance Education**

The changes, experienced dependent on the development of technology, impacted on many fields and brought different facilities with it. These facilities experienced in the fields such as economy, health etc. largely achieved revealing themselves also in the “education” field. Becoming widespread of the applications such as internet, mobile technology enabled making distance education and these developments enabled for the individual to have an opportunity to maintain their education without the limit of time and place. Therefore, the learning practices reach to more people in a shorter time. In this scope,

The concepts of the distance learning are:

- Lifelong learning,
- Simultaneous learning,
- On- line learning,
- Simultaneous distance learning,
- Different- time distance learning,
- Coeducation (Tübitak)

The mobile technologies are applications that such a change experienced in technology impacted mostly today. According to the data of the International Telecommunication Union in 2004, it was determined that 3 billions people use internet or mobile device in the world. When it is evaluated in this context, forming the service of the distance learning means for many people to get education service simultaneously by using the mobile technology.

The word “mobile” means “portable, movable”(Turkish Language Association, 2015). When it is considered in terms of education, it can be said that it means moving learning, learning via the portable devices (adapted from Sur, 2011 by Tazhiyeva, 2014, p. 7).

The Advantages of the Mobile Education can be counted as:

- Lifelong learning,
- Learning unawares,
- Learning in the time of need,
- Time and place independent learning,
- Learning adjusted according to the place and conditions (Bulun, Gülnar and Güran, 2004).

The mobile devices used in the distance learning are mobile phones, hand- held computers, tablet PCs, notebooks and so forth devices (Bulun, Gülnar and Güran, 2004).

### **2.1. Information Services In Distance Education**

The main purpose of information centers is providing the individual being in need of the exact information to access to it in the correct format in the quickest way in the most appropriate time. As stated in the previous part, the rapid change and development experienced in the information and communication technology offers variety in the learning methods. Accordingly, also the information centers should arrange their services in compliance with today' s technology changing their information services they offer (Çukadar and Çelik, 2003, p. 36). The mobile technology, one of the technologies used mostly nowadays is undoubtedly one of the technologies affecting mostly the information centers and the information services. It is thought that the mobile communication will cause two difficult change in the information centers; first of them is mobilisation of all of the information services with the interfaces developed for the information centers, the second is the maintenance the reconstruction process of the attention by the services, organisations starting with the mobilisation network(adapted from Dempsey, 2009: by Tonta, 2009, p.753).

If it is thought that the distance education become entirely important and widespread, information centers have to offer a variety of information services to meet the information needs of their individuals receiving the distance education service.

The individuals receiving the distance education service require the information centers, offering service via internet, in order to follow the up- to- date information and/ or to be able to meet their needs of information in the field they receive education according as the distance education service they receive (Çukadar and Çelik, 2003, p. 36).

The access equally to the information centers and the information services by the formal education students and the students receiving the distance education service should be the main purpose of the information centers and they should arrange their services concordantly.

The individuals applying personally to the information centers and the information experts and/ or getting in contact with the information centers and the information experts via the electronic media such as phone, fax, e- mail etc. should be given the advisory service uninterruptedly to meet their needs (Aydın). The information experts give an advisory service to the individuals receiving the distance education service through the fields stated below:

- On- line Library Catalogue
- Printed Information Sources
- E- books
- E- reference Sources
- Databases WithTthe Full Text
- Catalogued Domineering Web Sites
- Lesson Sources Based On Web
- Interlibrary Unit System (Inter Library Loan System) (Çukadar and Çelik, 2003, p. 36).

### 3. Evaluation and Conclusion

In this study, the description of the opinions of the prospective science teachers concerning the mobile applications and information services in the distance education has been aimed. The sample of the research is composed of Bayburt University and Kastamonu University Primary Science Education Department third class students.

31.6% of the teachers participating in the survey said they are on average 1-2 hours per day to use the internet. At the same time among the most widely used mobile technology, smartphones and laptops has increased. The intended use of mobile technology is the communication of 94.6%. At the same time 52.8% of teacher candidates before they didn't heard the concept of mobile learning.

There is no distance education in surveyed universities. 90% of teachers in the survey results is that they are trained not to be suitable for distance education programs. In this case, inequality is thought to arise between distance learning and formal education. All results showed that the distance education system is not yet fully widespread and the structure of mobile technology into a fully useful function. The results using distance learning and mobile technologies, the functions of the newly established information centers in universities has been found to be incomplete in support services to distance education.

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