



Hacettepe University Social Sciences Institute  
Information Management Department

**EVALUATING E-LEARNING READINESS OF FACULTY OF  
LETTERS OF HACETTEPE**

Mandana Mir Moftakhari

Master's Thesis

Ankara, 2013

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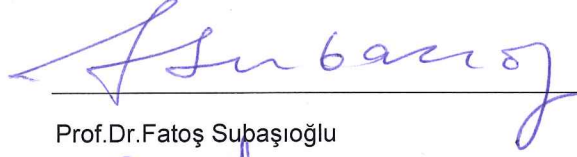
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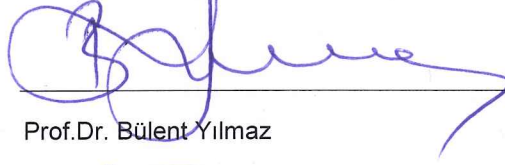
Mandana Mir Moftakhari Mahkham Fard tarafından hazırlanan "Hacettepe Üniversitesi Edebiyat Fakültesinin E-öğrenim Uygulamasının Hazırlık Aşaması Açısından Değerlendirilmesi," başlıklı bu çalışma, 31.05.2013 tarihinde yapılan savunma sınavı sonucunda başarılı bulunarak jürimiz tarafından Yüksek Lisans Tezi olarak kabul edilmiştir.



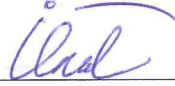
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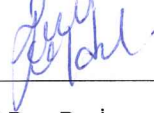
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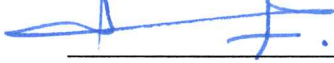
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31.05.2013



Mandana Mir Moftakhari Mahkhah Fard

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## ABSTRACT

MIR MOFTAKHARI MAHKHAH FARD, Mandana. *Evaluating E-learning Readiness of Faculty of Letters of Hacettepe University*, Master's Thesis, Ankara, 2013.

In the information era, e-learning is considered as one of the means to increase the global competitiveness of a nation. Before e-learning is largely implemented in education system, it is important to assess the e-learning readiness.

The main purpose of this research is to discover whether Faculty of Letters of Hacettepe University is ready for e-learning. Survey method and questionnaire are used for data collection. Stratified sampling was used to select samples. 146 instructors and 311 senior students participated in the research. Based on previous researches, factors which influence e-learning readiness were selected as: Availability of technology (only for students, because the nature of e-learning requires a distance connection generally from the residence of the student), use of technology, motivation and acceptance, self confidence and training, as well as institutional readiness. The main hypothesis of this study "Faculty of Letters of Hacettepe University is not ready to adapt to e-learning" is proved partially. Based on findings, it can be interpreted that students of Hacettepe University Faculty of Letters are ready for e-learning. On the contrary instructors are not ready for e-learning at the same level. According to both instructors and students, Institutional Readiness is not satisfactory. Use of Technology Readiness is lower than expected level for both groups. Acceptance Readiness and Self Confidence Readiness of students are over the expected level, however it is the contrary for instructors. On the other hand, there is a good acceptance for training. Both instructors and students believe that they need to be trained before launching e-learning applications. Results also show that discipline, age, status and gender are significant factors for e-learning readiness.

### Key Words

e-learning, e-learning readiness, Faculty of Letters of Hacettepe University

## ÖZET

MIR MOFTAKHARI MAHKHAH FARD, Mandana. *Hacettepe Üniversitesi Edebiyat Fakültesinin E-öğrenme Uygulamasının Hazırlık Aşaması Açısından Değerlendirilmesi*, Yüksek Lisans Tezi, Ankara, 2013.

Bilgi çağında e-öğrenme bir ulusun küresel rekabet gücünü artırmak için önemli araçlardan biri olarak kabul edilmektedir. E-öğrenme, eğitim sisteminde uygulanmadan önce e-öğrenme hazırlık durumunu değerlendirmek önemlidir.

Bu çalışmanın ana amacı, Hacettepe Üniversitesi Edebiyat Fakültesinin e-öğrenmeye hazırlık durumunu değerlendirmektir. Araştırmada betimleme yöntemi ve veri toplamak için anket kullanılmıştır. Araştırmaya katılan 146 öğretim elemanı ve 311 son sınıf öğrencisi tabakalı örnekleme yöntemi ile seçilmiştir. Daha önce yapılan çalışmalardan faydalanılarak e-öğrenmeye hazırlık durumunu etkileyen faktörler şu şekilde belirlenmiştir: Teknolojiye ulaşılabilirlik ( sadece öğrenciler için, çünkü e-öğrenme doğası gereği öğrencilerin ikamet ettikleri yerden dolayısıyla uzaktan bağlanarak eğitim almalarını gerektirir), teknoloji kullanımı, kabullenme ve motivasyon, öz güven, eğitim ve kurumsal hazırlık.

"Hacettepe Üniversitesi Edebiyat Fakültesi e-öğrenmeye uyum sağlamaya hazır değildir" şeklinde belirlenen ana hipotez kısmen kanıtlanmıştır. Bulgular Hacettepe Üniversitesi Edebiyat Fakültesi öğrencilerinin e-öğrenme için genel olarak hazır olduklarını ancak öğretim elemanlarının aynı düzeyde hazır olmadıklarını göstermektedir. Hem öğrenciler hem de öğretim elemanları Kurumsal Hazırlık açısından Fakülteyi yetersiz bulmaktadırlar. Her iki grup için Teknoloji Kullanımı hazırlık düzeyi beklenenin altındadır. Öğrencilerin Kabullenme ve Özgüven hazırlık düzeyi beklenenin üzerindeyken bu durum öğretim üyeleri için tam tersidir. Diğer taraftan her iki grup da e-öğrenmeye geçmeden önce eğitim gereksinimi duymaktadır. Sonuçlar aynı zamanda disiplin, yaş, statü ve cinsiyetin e-öğrenmeye hazırlığı etkileyen önemli faktörler olduklarını göstermektedir.

### Anahtar Sözcükler

E-öğrenim, e-öğrenim hazırlığı, Hacettepe Üniversitesi Edebiyat Fakültesi

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# CHAPTER 1

## INTRODUCTION

### 1.1. THE SIGNIFICANCE OF STUDY

Individuals' lives and occupations have been affected by rapid economical, social and technological changes. Consequently, there is an increasing request for continuing education, flexible learning and different forms of professional training. The new educational paradigm has been growing around the world at different speeds, based on availability of resources and infrastructure of each country. Changes mentioned above have caused a gradual alteration in the usage of Information and Communication Technology (ICT) in education (Fisser & Geloven, 1999, p. 116). Today, the evolvement in ICT is affecting many sectors including the education sector. In higher education, teaching and learning processes are being changed by the use of ICT in the form of e-learning (Sife, Lwoga & Sanga, 2007, p. 57).

Higher educational institutions play highly significant role in any society. However universities are suffering from lack of budget, proliferation of student population and ever changing and wide range of educational needs. Thus each society requires fundamental changes in its educational system. It seems that implementing e-learning can be a suitable solution as it offers many benefits for organizations and individuals, including developing meta-cognitive skills, widening access to resources, supporting disabled students, improving quality of learning outcomes, reducing costs, increasing flexibility, and enhancing sustainability (Chan & Ngai, 2007, p. 290; Welsh et al., 2003, p. 248). Therefore, in most countries electronic universities have been developed to respond the educational needs (Hill & Raven, 2000, p. 1).

As the number of organizations which decide to join and expand e-learning increases, it becomes more critical to assess organizational readiness to use

technology for a successful implementation and to match learning strategies with local needs (Saekow & Samson, 2011, p. 126).

E-learning is seen as a good opportunity for universities and organizations to reduce the cost of training and increase its quality but like any other major innovation, it needs to be well prepared, and requires considerable analysis and careful planning before implementation. Moreover, past failures of e-learning interventions enforce us to have a comprehensive readiness assessment in order to decrease the risk (Mercado, 2008, p. 18).

E-learning readiness is the first step in online learning feasibility for any institution that intends to utilize this technology, otherwise e-learning might end with unattractive training products, extra costs and failure. In other words, to guarantee the tangible benefit of e-learning in various situations, there is a need to measure organizations' and individuals' readiness for e-learning (Aydın & Taşçı, 2005; Borotis & Poulymenakou, 2004; Kaur & Abas, 2004; So & Swatman, 2010)

The success of e-learning depends heavily on human resources' readiness, so both instructors and learners need to be open-minded and able to adapt themselves to modern technology. While the role of instructor and learner is critical in effectiveness and success of all kinds of education, for e-learning their readiness also becomes critical (Rozgiene, Medvedeva & Straková, 2008, p. 15).

## **1.2. PURPOSE OF THE STUDY AND STATEMENT OF THE PROBLEM**

In order to transform Europe into the most competitive and dynamic knowledge-based economy in the world, European Union has considered merging e-learning into traditional education and training as a vital approach (Mackeogh & Fox, 2009, p. 147).

Following the foundation of Turkish Republic, a well organized and effective education system was at the top aim to be transformed into a national, secular,



and democratic state. In order to reach all segments of the society in the shortest period of time possible, during the subsequent years, “e-learning” has started to be seen as an alternative among the others (Nişancı, 2005, p. 59).

Nowadays e-learning has become one of the exiting issues in Turkey. Plenty of e-learning projects are being developed and different e-learning tools are being employed. Mostly universities are implementing e-learning applications.

Nevertheless, there is still a raising need to realize how to integrate e-learning into organizations, particularly in higher education sector. Due to the lack of research studies that focus on factors influencing the adaption of users, information systems are not used as much as they should have been (Park, Roman, Lee & Chung, 2009, p. 197).

The initial step to utilize e-learning effectively is to assess readiness for e-learning from the organizational as well as individual perspectives. This may help avoiding misuse or underuse of e-learning or prevent universities from wasting their resources. Investigating the extent to which an organization is ready for e-learning helps to set up strategies for e-learning and to implement its goals in an efficient way (Kaur & Abas, 2004, p. 2).

Hacettepe University, one of the largest universities in Turkey, was founded in 1967 and currently has 27,999 students and 3495 academic staff. There are 13 faculties and more than 60 research and teaching institutions within the university. Faculty of Letters is the largest faculty at the university with 5918 students and 228 teaching staff including research assistants<sup>1</sup>.

Except some e-courses which are presented in German Language and Literature and Information Management departments, there is no e-learning application in the Faculty of Letters. However, it is obvious that the Faculty can benefit from advantages of e-learning and in a near future there would be a need to start an e-learning education. Before implementing any e-learning program in Faculty of Letters of Hacettepe University the e-learning readiness of the Faculty should be evaluated.

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<sup>1</sup> According to the data provided by Faculty of Letters of Hacettepe University on 28.01.2013

This research aims to investigate the readiness of Faculty of Letters of Hacettepe University for implementing e-learning systems. This study will focus on: reviewing similar research and research instruments in literature; assessing e-learning readiness of the instructors and students; and identifying factors that need to be developed further in order to implement e-learning successfully in Faculty of Letters of Hacettepe University.

In this research, based on previous researches like Akaslan and Law (2011) and Soydal, Alir and Ünal (2012), four major characteristics of instructors and five characteristics of senior students are used for measuring e-learning readiness. These include: availability of technology (only for students, because the nature of e-learning requires a distance connection generally from the residence of the student); use of technology; motivation and acceptance; self confidence and training; and their perception about e-learning readiness of their departments. The research problem is formulated as follows: Is Faculty of Letters of Hacettepe University ready for e-learning?

### **1.3. RESEARCH QUESTIONS and HYPOTHESES**

The proposed research is designed to assess the readiness of students and instructors of Faculty of Letters of Hacettepe University to implement e-learning.

This will be addressed by following research questions:

- Is Faculty of Letters ready for e-learning?
- To what extent are students ready to adapt to e-learning?
- To what extent are instructors ready to adapt to e-learning?
- Are there any differences among participants regarding their genders, in terms of accepting/rejecting e-learning?
- Are there any differences among participants regarding their ages, in terms of accepting/rejecting e-learning?
- Are there any differences among the participants regarding their departments in terms of accepting/rejecting e-learning?

- Are there any differences among the instructors regarding their status in terms of accepting/rejecting e-learning?
- Is there any need for training in the implementation of e-learning?

Based on these research questions, the main hypothesis of the research is "Faculty of Letters of Hacettepe University is not ready to adapt to e-learning".

Based on the main hypothesis sub hypotheses are formulated as follows:

- Students are not ready to adapt to e-learning.
- Instructors are not ready to adapt to e-learning.
- There are differences on the degree of e-learning readiness regarding gender.
- There are differences on the degree of e-learning readiness regarding age.
- There are differences on the degree of e-learning readiness regarding discipline.
- There are differences on the degree of instructors' e-learning readiness regarding status.
- There is a need for training in the implementation of e-learning.

#### **1.4. RESEARCH DESIGN AND METHODOLOGY<sup>2</sup>**

The survey method and questionnaire technique are used. Two questionnaires were conducted. 146 instructors and 311 senior students participated in the survey. Stratified sampling was used to select samples (Baş, 2010, p. 39) based on following formula:

$$n = Nt^2p(1 - p)/d^2(N - 1) + t^2p(p - 1)$$

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<sup>2</sup> Detailed information about methodology is presented in chapter 3.

Where (n) is sample size, (N) is population size, confidence level (t) is significance value (1.96), the probability that the observed data would occur (p) is 0.50 and error rate (d) is 0.05.

Rogers (2003, p. 32) indicates that every system (i.e., organization, culture, country, individual) has its own special norms that can be effective in using an innovation in its system. From this perspective, it can be said that the same instruments or models may not work for organizations of other countries. Therefore in this thesis the questionnaires were adopted from previous studies (Akaslan & Law, 2011a; Akaslan & Law, 2011b; Soydal, Alır & Ünal, 2012) of the readiness for e-learning which have been carried out in Turkish universities.

The questionnaire of instructors consists of three sections. Section A is related to the instructors' demographic data such as department they belong, gender, age and status. Section B examines their perception of institutional readiness for e-learning and Section C examines their personal readiness for e-learning which has four subsections namely; use of technology, self confidence, acceptance and training.

Students' questionnaire consists of three sections. Section A relates to demographic profiles of students, such as department, gender and age. Section B examines their perception of institutional readiness for e-learning and Section C examines their personal readiness for e-learning which has five subsections namely; access to technology, use of technology, self confidence, acceptance and training.

In a pilot study, questionnaires were distributed to 10 instructors and 10 students from Faculty of Letters and following the pilot study, some changes and adjustments are done to make questions more clear. Statistical Package of Social Sciences (SPSS) is used to analyze the data. Chi-Square tests were applied to the data set. Participants asked to report their perceptions on e-learning related items with a five point Likert-Scale where 1 being "strongly disagree" and 5 being "strongly agree".

## **1.5. THE STRUCTURE of THE RESEARCH**

The research is organized in six chapters as follows:

- Chapter one provides the introduction including the significance of study, the purpose of the study, statement of the problem, research questions and hypotheses, a brief description of the research design and method.
- Chapter two presents the literature review to address the nature of e-learning systems, a brief description of e-learning in higher institutions in developing countries and Turkey and definition of e-learning readiness measurement.
- Chapter three describes the methodology used for this study, along with details on participants, research instruments, data collection procedures, and data analysis.
- Chapter four provides analyzes and interpretation of the data collected from instructors.
- Chapter five provides analyzes and interpretation of the data collected from students.
- Finally, Chapter six draws conclusions from findings and makes recommendations.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1. INTRODUCTION**

The advancement of the Internet into a worldwide, high-speed, multimedia communication platform has enabled the development of e-learning as an effective teaching and learning mechanism. In education, e-learning offers significant benefits to students and instructors for research, training, and online learning on par with traditional instruction. In many countries, e-learning has become a critical component of lifelong learning and of long-term planning strategies.

#### **2.2. DEFINITION of E-LEARNING**

Previous studies provide diverse definitions of and synonyms for e-learning a fact that makes it difficult to develop generic definition.

Nicholson (2007, p. 1) revealed that since the 1960s, e-learning has evolved in all levels across all sectors including business, education, training and the military, thus e-learning has various meanings in different contexts. Many researchers have attempted to provide an extensive definition of e-learning from different perspectives including investigating the history of e-learning; comparing the meanings from various contexts and practices; investigating the technologies employed in the systems; developing frameworks and examining e-learning theoretical positions (pedagogy) in each era.

E-learning is known by various terms including: computer assisted instruction, computer-based training, computer managed instruction, course management system, integrated learning systems, interactive multimedia instruction, learning management system, technology based learning, technology enhanced

learning, web-based training and so forth. There are some examples of various definitions of e-learning by using these terms.

- Web-based training is “a training method for distance learning that uses the technology of the Web, the Internet, Intranets and extranets” (Chan & Ngai, 2007, p. 290).
- Web-based instruction is “a hypermedia based instructional program, which utilizes the attributes and resources of the World Wide Web to create a meaningful learning environment where learning is fostered and supported” (Khan, 1997, p. 6).
- Virtual Learning is “the educational process of learning over the Internet without having face-to-face contact” (French, et al., 1999, p. 2).
- Online learning is synonymous to web-based learning where learning is delivered via www only, in an intranet or Internet (Mishra, 2007, p. 2).
- Technology-based training is “a wide set of applications and processes including computer-based learning, virtual classroom, and digital collaboration” (Hambrecht & Co., 2000, p. 8).

Condie and Livingston (2007, p. 340) note that e-learning is “a range of activities, from the effective use of digital resources and learning technologies in the classroom, through to a personal learning experience enabled through individual access at home or elsewhere”. According to Holsapple and Lee-Post (2006, p. 68) e-learning is “the process of extending learning or delivering instructional materials to remote sites via the Internet, intranet/extranet, audio, video, satellite broadcast, interactive TV, and CD-ROM”. Huei (2003, p. 1) stated that e-learning is the product of the emerging technology which turns traditional class course into the online course. Nicholson (2007, p. 1) added that e-learning is a new form of learning that utilizes the Internet to deliver customized, often interactive, learning materials and programs to diverse local and distant communities of practice. E-learning is defined as instructional content or learning experiences delivered by electronic technology at any time or place (The Commission on Technology and Adult Learning, 2001, p. 4). The U.S. Department of Education’s Office of Education Research and Improvement

(Bruder, 1989) defines e-learning as the application of telecommunications and electronic devices which allow students and learners to receive educational instruction from remote location.

As mentioned above there are various definitions of e-learning. Based on these definitions, e-learning;

- uses new multimedia technologies, the Internet learning platforms, equipments, video conferencing, multimedia accessory and online testing websites.
- supports and enhances the quality of teaching and learning process.
- is the transference of a broad array of instructions that enhance learning.
- facilitates quick and effective distribution of knowledge and information.
- facilitates a teaching and learning at a distance.
- is Inter or Intranet based, allowing to access the same material from disparate places at the same (synchronous) and/or different (asynchronous) times.

The term e-learning in this study is defined as learning or training activities in an organization supported by the use of information and communication technology (ICT). E-learning allows both instructors and learners not to be in the same place nor at the same time. In addition in e-learning, the course contents, assessments, guidance, and feedback can be delivered in the form of diverse multimedia through online channels. It is significant to recognize that e-learning not only involves providing electronically-encoded information through the network but also includes learning practices, providing interactive feedback and guidance.

### **2.3. TYPES of E-LEARNING**

Types of e-learning can be categorized in different ways (CERT -TATA, 2004, p. 2-5; Fallon & Brown, 1955, p. 4-5):



The first level of categorization is based on the technology used in the delivery process. The technology/media to deliver an e-learning course includes:

*Television:* Television can be used for delivering an e-learning course, which is known as videoconferencing, involves the use of two-way video technology to create a virtual classroom environment. This method is the closest approximation to a classroom course but it may be an expensive alternative when compared to other delivery options also the option of being anytime and anywhere is lost with videoconferencing.

*Compact discs:* Instructional content is delivered on CD. The CD-based course can be made an independent unit by copying all the files that make up the course's instructional content on the CD itself so students can move quickly between the various screens of the course. There are very few compatibility issues that need to be addressed when using a CD-based course and the additional software required can be copied onto the CD itself. There are some disadvantages of using the CD-based approach to deliver e-Learning: Instructional content on the CD cannot be copy-protected, students' progress on the course cannot be tracked or upgraded easily.

*The Internet:* Learning is delivered via a Web browser over the Internet, a private intranet, or an extranet. It is this form of delivery that most people have in mind when they think of e-learning. By this method we can securely access to the course screens, track students' progress, easily upgrade the course and reuse instructional content. But there are some disadvantages such as: the speed of access to the course depends on the type of Internet connection used; the content of each page must be downloaded before being viewed; rich multimedia features in the course is not advisable because of using different Web browsers, compatibility issues need to be addressed while developing the course.

The second categorization is based on the degree of synchronization between instructor and learner. Instructors and individual learners can interact with each

other efficiently and effectively through either asynchronous or synchronous communication channels (Chan & Ngai, 2007; Sharma & Mishra, 2007, p. 184).

*Synchronous:* Synchronous learning is a learning environment in which both learners and instructors are present at the same time during the instruction in different places (Maglogiannis & Karpouzis, 2007, p. 1951). Welsh et al. (2003, p. 246) noted that the synchronous systems require both parties to be in front of their computers at the same time.

Synchronous e-learning utilizes a learning model that emulates a classroom course using Internet technologies in a two-way communication with practically no time delay, allowing participants to interact with each other and respond in real time. The concept of synchronous includes chat rooms, scheduled event discussions and the use of instant messaging applications (such as Skype, Yahoo Messenger, MSN) enabling participants to type comments and replies in real time. Some packages allow scheduled online events including instructors or speakers, interactive sessions or presentations to be recorded for later viewing, therefore, it allows other participants to catch up by reading the transcripts if they were not present in the chat room (Fallon & Brown, 1955, p. 5).

*Asynchronous:* Most e-learning institutions are typically asynchronous (Welsh, et al., 2003, p. 246). Asynchronous e-learning is the Web-based version of computer-based training which enables people to learn anytime and anywhere, thus learners and instructors do not have person-to-person simultaneous interaction during teaching or learning processes (Maglogiannis & Karpouzis, 2007, p. 1951). In this case, the pre-recorded learning materials or processes are served from a Web server and delivered on demand to the learner through an open network or the www, private intranets, or home computer-based study applications, and communicated through emails and online messaging. Asynchronous interaction is a two-way communication that happens with time delay whether it is affected by the communication tools or by choice for participants' convenience in order to deal with time zone differences. Learners can take courses at their own pace, 24 hours per day and 7 days per week

(24/7) (Fallon & Brown, 1955). The interaction takes place over a period of time and it is typically in the form of discussion groups. Participants are able to post messages in a discussion group. Others can reply over the following days, weeks or not at the same time. Due to the setting of permissions, learners can be accessed from any workstation connected to the Internet or to an organization's intranet. The courseware may be comprised of any combination of text, still images, animations, sound, or movies. Such systems provide learners with access to their assigned courses via a personalized menu, and track and record learner progress in those courses (Fallon & Brown, 1955).

*Blended learning:* Sometimes a single course type does not meet all requirements which may be critical to the successful delivery of learning. In this case, a blended course can be developed by combining some of the characteristics of different course types.

Blended learning is a combination of online and face-to-face content delivery using various learning resources and communication options available to learners and instructors (Davis & Fill, 2007, p. 1). It involves a mix of delivery options. It combines both *asynchronous* and *synchronous* means and uses a combination of technology and classroom-based learning. Blended learning is becoming a very popular form of training (Welsh, et al., 2003, p. 247). It aims to address learners' inability to completely adapt to online courses as it provides learners and instructors the benefit and the convenience of online courses without the loss of the conventional face-to-face method. Condie and Livingston (2007, p. 344) note that blended learning is designed to complement traditional teaching and learning rather than replace it.

For high level of interactivity the computer-based training approach and in order to maintain the integrity of assessments, the Web-based training approach over the Internet can be used. Additionally, a few classroom sessions can be included to give students a chance to interact with their instructors and get their questions resolved. If it is not convenient for students to be physically present at the same location for the classroom sessions, videoconferencing can be used to create a virtual classroom. Generally, when educators talk about blended

learning, they tend to refer to a combination this of several forms of e-learning with traditional classroom instruction.

Welsh et al. (2003, p. 247) noted that including a large amount of information often makes training ineffective as learners may be confused by it in classroom-based training. Thus, blended learning can be used to overcome this problem as the delivery of lessons can be done in various ways: in-class training (only for the most interactive lessons), asynchronous and synchronous. The information can be delivered over a longer period of time and learners can obtain the information they need through several methods and choose which are best suited to them. In other words, e-learning can be customized to the learning requirements and preferences of each learner.

#### **2.4. BENEFITS of E-LEARNING**

E-learning as a revolution in education of the 21st century has many advantages over traditional learning. As indicated by Mishra (2007, p. 1) e-learning has become popular among educationists due to strengths and advantages it provides to the educational process.

According to Aydın and Taşçı (2005, p. 244) e-learning has increasingly flourished in organizations. Haney (2002) noted that e-learning is becoming commonplace for instructional designers, human performance technologists, trainers, and human resources professionals, as well as end-user learners. Welsh et al. (2003, p. 248) also added that e-learning is appearing in organizational training as it enables consistent training delivery via the Internet across multiple locations. There are some reasons why organizations implement e-learning.

*Cost efficiency.* The single most influential factor in adopting e-learning is reducing cost by just-in-time training at any time and any location. As Welsh et al. (2003, p. 248) indicates cost savings involve reduced travel expenditure, saved time, and reduced classroom allocation. Also the educational instructions

can be distributed to the entire organization at once without any requirement of booking auditoriums, making travel reservations, and providing accommodation for large numbers of trainers and trainees (Chan & Ngai, 2007; Welsh et al., 2003).

*Availability and flexibility:* E-learning is a just-in-time system which offers powerful tools that facilitates flexibility and enables the learners to participate and complete training conveniently from home, work or anywhere else at anytime (Hefzallah 1999, p. 45). E-learning also allows learners to access educational resources from both inside and outside the organization on a global and immediate basis (Sharma & Mishra, 2007, p. 1; Wild, Griggs, & Downing, 2002, p. 373). In other words, e-learning is a flexible independent delivery platform that makes possible the delivery of instruction from instructors to learners and is accessible through any computer with a simple browser interface (Sharma & Mishra, 2007, p. 1; Welsh, et al., 2003, p. 248).

*Reduce the cycle of delivery time:* E-learning enables organizations to provide training and information sharing for a large number of learners across dispersed areas at the same time (Chan & Ngai, 2007, p. 290; Stokes, et al., 2004, p. 192; Welsh, et al., 2003, p. 248). E-learning has the ability to serve a large number of students across multiple boundaries reduces the cycle of delivery time, compared to traditional learning methods which can only train limited numbers of learners in a particular place and time.

Because content is electronically delivered, it can be faster to create, update, and revise than if the material is delivered in other ways - as often is the case in traditional classroom settings. This means that e-learning can be an appropriate alternative in situations where learning content is quickly changing, and where the primary objective is the rapid, efficient dissemination of knowledge (Urdan & Weggen, 2000, p. 6).

*Appeal and involvement:* Many of the e-learning tools such as Blackboard, Centra, Wimba, etc. encourage student motivation and collaboration; improve team working skill and independent thinking; and desire to remain in online educational environments. E-learning enables designers to prepare quality

learning materials through online simulation tools and animated learning objects so it appeals more to learners. E-learning also increases learner control through hypertext-based presentation of information and creates opportunities for international, cross-cultural, and collaborative learning (Sharma & Mishra, 2007, p. 1). Thus, E-learning by evoking critical thinking, reasoning and goal-based learning is able to encourage active and constructive learning (Inglis, 1999, p. 221; Bernard et al., 2000, p. 263).

*Reducing information overload:* Welsh et al. (2003, p. 248) point out that learners may be overwhelmed by huge amount of information which is offered in traditional training, but e-learning can efficiently manage the continually increasing amount of information delivered to learners. By e-learning the information can be delivered over a longer period of time and learners can obtain the information they require through various methods and they can choose which are best suited to them.

*Improving tracking:* E-learning offers the capability to track learners' activities and have a feedback from the whole course (Sharma & Mishra, 2007, p. 1). These capabilities are useful when such training is offered to a large number of learners across dispersed areas because it is hard to deliver course materials to all learners and track all learners' activities and progress in remote places using conventional methods and they require significant time, effort, and resources.

Consequently, e-learning, as one of the major innovations, delivers instructional content or learning experiences electronically and makes it accessible from anywhere/anytime. Therefore it is a good opportunity for organizations that have to deal with ever changing information and learning needs.

## **2.5. DOWNSIDES of E-LEARNING**

Despite many advantages of e-learning, it might not be the best solution for all organisations or circumstances. Thus in order to maximize its benefits there

should be an attempt to eliminate its disadvantages.

Welsh et al. (2003, p. 249) identified several challenges in using e-learning: It requires a considerable and significant amount of resources, effort and planning; it requires a static attitude and there is a lack of interaction. Ali and Magalhaes (2008, p. 40-42) also listed the main barriers to e-learning implementation and adoption as cost; time; technology; resistance to change; lack of appropriate content related to particular requirements; language barriers; difficulties in measuring e-learning effectiveness; lack of strategic planning and direction particularly; lack of e-learning awareness; lack of stimulus; and lack of management support. Nichols (2007, p. 607) pointed out other key barriers to sustainable e-learning implementation as poor strategic ownership; insufficient support from senior management; unready culture for innovation; and e-learning misconceptions.

We can list the disadvantages of e-learning as follows:

*Requiring a considerable amount of resources and budget:* It seems like, cost is one of the main barriers especially for launching and implementing e-learning. The beginning of implementing e-learning systems requires considerable expense include investment for developing IT infrastructure and human resources; designing and building the actual courses, and providing hardware and software to allow users to access the e-learning systems (Ali & Magalhaes, 2008, p. 41; Unneberg, 2007, p. 203-205). It means that e-learning implementation requires considerable expenditure.

*Lack of interaction:* E-learning may appear less attractive and less useful if it does not include interaction among learners (Bell, Martin, & Clarke, 2004, p. 304). E-learning may seem as merely electronically-encoded information because the use of electronic technology to deliver materials in an online environment is mostly in the form of static and non-interactive (Welsh et al., 2003, p. 249).

There is a possibility that instructor become busy with the spread of information and forget that e-learning not only entails providing electronically-encoded

information through the network but also involves learning practices, providing interactive feedback and guidance.

*Requiring significant time and motivation:* E-learning also needs just as much time for attending class and completing assignments as any traditional classroom course. This means that learners have to be highly motivated and responsible due to the fact that all the work they do is on their own and learners with insufficient motivation or bad study habits may fall behind.

*Requiring extensive technological skills:* Ali and Magalhaes (2008, p. 39) claim that learners who tend to have lower participation and lower motivation in the learning process mostly are not familiar with new technology and this may cause the learners to get frustrated and give up the learning process. Condie and Livingston (2007, p. 338) also added that instructors who have low confidence and insufficient understanding of using ICT hinder e-learning adoption. So instructors and learners must be proficient in ICT, especially in the area of adopting e-learning.

Mutula and Brakel (2007, p. 232-234) indicated that not only in developing countries but also in developed countries ICT skills shortage remains the greatest obstruction. They found that Europe had supported resources to implement widespread Internet access; train instructors in Internet literacy; and put in place initiatives such as e-learning and online public services.

*Technology:* Technical issues are one of the significant obstacles for e-learning adoption and implementation such as: system failures; bandwidth and infrastructure upgrading; accessibility; usability; availability of technical support; fear of using technology; and difficulties in performing online procedures (Ali & Magalhaes, 2008, p. 41; Condie & Livingston, 2007, p. 346). In other words, the inability of technical support and qualified e-learning suppliers can make an organization unwilling to use e-learning as a training solution. Additionally, Ali and Magalhaes (2008, p. 41) noted that technology needs continuously upgrading and maintaining because it is integral, expensive, unpredictable, and can become outdated.



*Cultural challenges:* White (2007, p. 840) points out that e-learning implementation can be affected by an institution's internal culture, structure, system, and climate. Internal resistance to using technology is most visible cultural impediment to e-learning implementation (Nichols, 2007, p. 601).

According to Ali and Magalhaes (2008, p. 41) e-learning is considered unsuccessful if the intended users refuse to accept the systems, whether it was well-designed. It means that the culture of the organization should be familiar with ICT or online media and also to be ready to implement it.

Additionally, regardless of the advancement of technology to deliver information, most learners still rely on conventional means in accessing literature.

As a result, it can be said that implementing new technology requires adaptation from both organizations and the learners by overcoming; insufficient support from management; unready culture for innovation; resistance to change; poor leadership; poor strategic ownership; lack of effective staff development; and e-learning misconceptions. By integrating e-learning technology with the existing systems, having compatible software and hardware, ensuring suitable capacity to run e-learning systems and improving instructors' and learners' technological competency such as ability to use, upgrade, and customize the new technology, effective e-learning implementation can be accomplished.

## **2.6. E-LEARNING in HIGHER EDUCATION INSTITUTES in TURKEY**

Being an investment in human capital, education is one of the ways which assists and maintains social and economic welfare. The recent decades have witnessed the promotion of new information and communication technologies, which have a huge influence on the social and economic development of the countries. Higher education institutions are responsible for training individuals as citizens equipped with new knowledge and skills. Thus, higher education institutions will be challenged to respond to the varying requirements and

interests of the new generation of students. It is believed that e-learning now becoming an important factor in higher education in many countries because it has capability to meet a wide diversity of learning needs of all types of learners in many countries. Gurmak, John and Harvey (2004, p. 14) indicated that e-learning helped universities to be able to expand their currently geographical reach, to capitalize on new prospective students and to establish themselves as global educational providers. Consequently online education has quickly become a widespread and accepted mode of instruction among higher education institutions throughout the world. Many universities who teach traditional courses started to embrace some teaching methods by online education.

The developing countries are geographically distributed all over the world and each of them has specific culture, politics, social and economic situation. According to this fact that the perception of education is effected by different culture, educational system and social norms the opportunities for employing ICT in distance education and strategies for e-learning in one country are different from those in another. However, Hogan (nd, p.5) claimed that there are common general barriers of applying e-learning in education which all developing countries are facing. He mentioned that in developing non-English speaking countries which learners require access to learning activities in their own language, there is a large language obstacle to adoption and a high probability that the learning activity outcomes will be under optimal. Ahmed, Nabeel, and Salah (2008, p. 19-21) stated that the unique chance to access world class courses and professionals in developing countries is e-learning; also he mentioned some problems that affect the usage of e-learning in developing countries such as insufficient ICT infrastructure, language capability difference and lack of local content, new culture for learning and lack of ready educators. E-learning can become a powerful method for extending education in developing countries if those countries overcome relevant problems.

Turkey as one of the developing countries try to progress in all fields like health, economy as well as education. The Open Education System is addressing the enormous educational, economical and logistical challenges of

servicing huge numbers of students in Turkey. It is also playing a significant role in Turkish higher education by signaling the imminence of change.

Aydın et al. (2006) observed that with the enormous demand for higher education and limited number of universities, distance learning in Turkey was inevitable. According to the fact that one-half of Turkey's people live in rural communities and engage in agriculture-related occupations, there is a great need to find ways of achieving higher participation in the remote, rural and underdeveloped regions, also students who are working adults, have family commitments and would not otherwise gain access to a university, so open education is their only alternative (Latchem, et al., 2006, P. 231-232).

The first initiative for distance education in Turkey was the establishment of the Correspondence Education Centre (Mektupla Öğretim Merkezi) in 1958 by the Ministry of National Education. The Centre aimed to provide opportunity for mass distance education towards formal and non-formal education at various subject areas and levels. The responsibility of distance higher education was given to the universities with the law in 1981. The Faculty of Open Education of Anadolu University in Eskişehir was established and given the responsibility of implementing distance education programs in 1982. As regards new learning technologies, the Middle East Technical University in 1996-1997, Bilkent University in 1996 and the Istanbul University in 2000 took the first initiative of e-learning education (Nişancı, 2005, p. 60-63).

The number of universities in Turkey which has e-learning is growing, however Turkey has a long way to have adequate e-learning education in all over the country.

## **2.7. E-LEARNING IMPLEMENTATION ISSUES AND FACTORS**

Implementation of e-learning like any other innovation needs to be planned ahead. Akaslan, Law and Taşkın (2011, p. 7-8) identified five stages to implement e-learning:

### *Stage 1: Measuring readiness for e-learning*

It is essential to investigate the extent of organizations' e-learning readiness. There are many factors which can have an impact on e-learning like physical components including computer and internet readiness of individuals.

### *Stage 2: Selecting or developing an e-learning platform*

Institutions should be familiar with e-learning platforms such as Blackboard, ATutor, Moodle, Ninova and should be able to select the most appropriate.

### *Stage 3: Developing materials for e-learning*

Software tools and e-materials must be existed: Microsoft Office, Google Documents and Wave, Facebook and MSN. E-materials, in other words content for e-learning should be developed.

### *Stage 4: Training individuals for the platform*

It is also essential to train instructors and students to implement e-learning. This should be conducted before delivering e-learning.

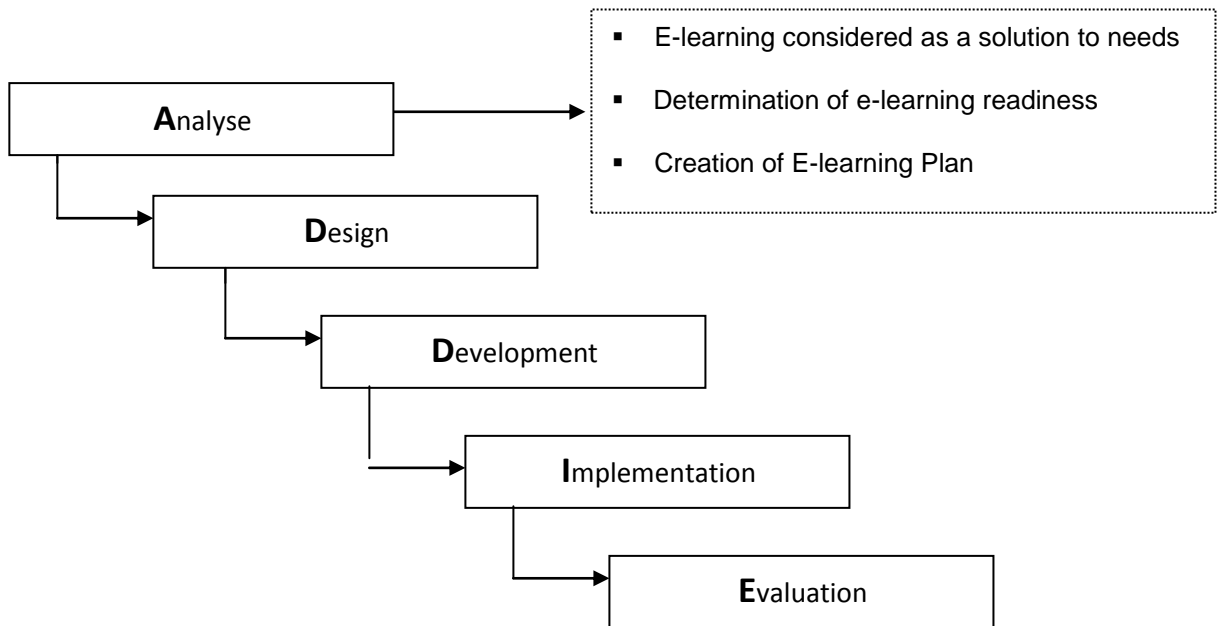
### *Stage 5: Delivering e-learning*

The final stage is to deliver e-learning after infrastructure, materials and participants are ready.

According to Wild, Griggs and Downing (2002, p. 372) an e-learning planning process involves four phases: assessing and preparing organizational readiness; determining the appropriate content; determining the presentation modes; and implementing e-learning.

The ADDIE model, described by Molenda (2003, p. 34) as "a colloquial term used to describe a systematic approach to instructional development, virtually synonymous with instructional systems development", is a generic instructional design model that provides an organized process for developing instructional materials. This systemic model is a five-step process that can be used for both traditional and online instruction. The five steps (analysis, design, develop, implement, and evaluate) provide an ideal framework to discuss solid instructional design techniques for online education. As in other, e-learning

readiness is also a part of ADDIE model. It takes place in the first phase where the needs of learners are analyzed.



(Molenda, 2003, p. 34)

**Figure 1.** The ADDIE model

A successful e-learning attempt must always involve a systematic process of planning, designing, developing, evaluating and implementing an e-learning environment where learning and teaching is actively encouraged and supported (Mercado, 2008, p. 18).

As we can see from above mentioned models the first and one of the most important step before any implementation of e-learning is assessing the readiness of organization and individuals.

### 2.7.1. The Concept of E-learning Readiness

Akaslan and Law (2011 b, p. 481) points out that e-learning may not have the

same effect for every individual, institution, organization so in order to ensure that the factual benefit of e-learning is valid in various situations, there is a need to measure and assess organizations' and/or individuals' readiness for e-learning appropriately.

According to Pillay, Irving and Tones (2007, p. 218) online learning readiness comprises the ability to handle time, to adapt to self-directed learning, to raise motivation, and to understand personal learning styles and experiences. Haney (2002, p. 10-11) suggested that evaluating organizational readiness include a set of skills or abilities to harmonize change management, examine multiple aspects of situations, manage cost-benefit analysis, and recognize political problems. Borotis & Poulymenakou (2004, p. 1623) define e-learning readiness as the mental and physical preparedness of users to obtain some learning experience or action. By e-learning readiness assessment an organization will be able to design e-learning strategies comprehensively and to implement its ICT goals impressively (Kaur & Abas, 2004, p. 2).

As a result we can say that e-learning readiness is the ability of an organization to take advantages of e-learning by assessing the organization's goals, needs, resources and motivation before implementing e-learning process.

### **2.7.2. Components of E-learning Readiness**

Although there is no agreement in the literature on what e-learning readiness components are, many researchers have tried to provide factors that determine an organization's readiness before launching an e-learning project. In other words e-learning readiness means several things to different writers, but one commonly used approach to e-learning readiness is the assessment of organizational and individual factors that should be considered if organizations are likely to be successful with the implementation of an e-learning (Chapnick, 2000; Hall, 2001; Rosenberg, 2000; Akaslan & Law, 2011b; Aydın & Taşçı, 2005). Previous studies discussed various aspects that can be used to measure organizational readiness and a number of instruments have been

developed to assess e-learning readiness. Eleven models were selected to be examined as they represent both developed and developing country contexts. They provide various aspects of e-learning in order to determine the factors that directly affect readiness to successfully develop and implement e-learning. Diverse e-learning components were identified from eleven models are presented on Table 1.

As indicated, technological readiness, cultural readiness, human resource readiness, financial resources, training process readiness and content readiness are commonly emphasized in all of the models. These factors are now going to be explored in more detail.

*Technological readiness:* According to Marquardt & Kearsley and Swanson (as cited in Engholm, 2001) organizations must make sure that the existing technology is able to provide the content in a way that maximizes security and minimizes the risk of creating confusion among users.

Equipment and infrastructure are vital components because e-learning implementation depends on access to a computer and Internet/intranet. If the benefits of e-learning are to be attained users must have comfortable and fast access to the network where the e-learning material is hosted.

Bates and Bernard, et al. (as cited in Engholm, 2001) indicate that technology (hardware and software) should be available to users and the hosting network being able to supply the content at a proper speed, security level and reliability that is deemed necessary for the organization's planned e-learning strategy also most of the time bandwidth limitations are reported as hampering e-learning operations.

Organization's technology readiness includes making sure that the learners are able to access content easily; that the learning process will not be hampered by speed and reliability issues with the Intra- and/or Internet; that IT support exists for helping learners and solving technological problems; and that security issues are resolved to protect the organization's information and content.

**Table1.** Summary of e-learning readiness factors from eleven studies

models Readiness Factors	Chapnick (2000)	Psycharis (2000)	Rosenberg (2000)	Haney (2002)	Minton (2002)	Watkins (2004)	Kaur &Abas (2004)	Borotis& Poulymenakou (2004)	Aydin &Taşçı ( 005)	Kapp (2005)	Aksalan & Law(2011)
Business or entrepreneurial			✓					✓		✓	
Capability					✓						
Content	✓			✓			✓	✓			✓
Culture							✓	✓		✓	
Education		✓									
e-learning industry			✓								
Environmental	✓	✓					✓				
Equipment	✓										
Financial	✓			✓			✓	✓		✓	
Human resource	✓		✓	✓			✓	✓	✓		✓
Information technology (IT)				✓							
Institution											✓
Innovation									✓		
Learner				✓	✓	✓	✓				
Learning management system				✓						✓	
Management					✓		✓				
Management of change			✓								
Motivation						✓					
Online audio/video						✓					
Online skills and relationships						✓					
Psychological	✓										
Self-development									✓		
Sociological	✓										
Technological skills (ICT)	✓				✓		✓	✓	✓	✓	✓
Technology access		✓				✓					
Training process			✓		✓			✓			
Value of teaching and information design			✓								
Vendor				✓							

*Cultural readiness:* The literature identifies the organization's culture as one of the significant factors to be assessed for e-learning readiness. Robbins et al. (2000) define an organization's culture as a system of shared meaning held by members that discriminates the organization from other organizations. Cultural



readiness is defined as “the enculturation of e-learning in terms of Internet use and networked technologies to disseminate information, communication, interaction and teaching” (Abas, Kaur, & Harun, 2004, p. 12).

According to the fact that most previous studies were about the readiness of companies e-learning proponents strongly argue that organizations must become learning organizations before they implement e-learning strategies. Rosenberg (2001) explained that it is essential to develop a powerful learning culture that not only supports, but also embraces learning as an important activity of everyone in the firm.

In successful organizations, individual learning is uninterrupted and continuous, knowledge is shared, the organization culture supports learning and all individuals are encouraged to think critically (Senge, 1994, p. 412). Therefore, a supporting culture is prominent determinant of e-learning readiness. So in the organization learning must be supported and encouraged; learners have to be given time and opportunities to learn; and individuals should have positive attitude toward training and learning; also e-learning must be supported by top management.

*Human resources readiness:* Human resources are referred to as another significant component of measuring readiness which e-learning is implemented by them. According to Chapnick (2000, p. 2) human resources readiness which involves management and personnel is the availability and set-up of the human support system.

According to Akaslan and Law (2011b, p. 483) organizations with more skilled staff are more likely to successfully adopt e-learning. So to find out the human resource readiness, assessment the individuals' self-reported competence, experience, confidence and anticipation about new technology is inevitable. Also to determine the level of readiness for e-learning, individuals' confidence for any particular ICT usage should be considered, because there is generally a linear relationship between internet/software skills and confidence regarding e-learning (Agboola, 2006, p. 3). Scheir and Carver (1993) believed that those individuals who have optimistic beliefs about something, continue to work

towards the desired outcome even their progresses are slow, and they try hard for it. So the pessimistic or optimistic opinions or beliefs of individuals about e-learning can be a significant factor that influences the readiness for e-learning.

*Training process readiness:* Training for e-learning is significant for e-learning readiness and it should be considered in the process of implementation of e-learning (Agboola, 2006, p. 4). In order to understand how people in the institutions tend to accept or reject e-learning, it is also relevant to assess whether people in the institution need training for e-learning before launching it (Akaslan & Law, 2011b, p. 483). Training process readiness also refers to the ability of organizations to organize, design, develop, implement and evaluate a proper training program.

*Content readiness:* Content readiness includes the availability of content, its format, levels of interactivity, reusability, and interoperability (Lopes, 2007). It might be difficult or undesirable for some institutions to transfer certain training content to the Internet or an Intranet, for instance some work processes that require certain physical skills may not be practical or feasible to teach over a computer (Farrell as cited in Engholm, 2001). E-learning readiness in terms of content contains issues such as: what learning material is to be taught, whether it is possible to be taught over the computer, and whether it can be bought or must be created.

*Financial readiness:* Financial readiness is “learner/trainee and institutional/organizational readiness to spend or allocate funds to develop and/or acquire e-learning” (Abas, Kaur & Harun, 2004, p. 12). Financial readiness includes budget size and the funding allocation process. Although e-learning helps to reduce costs of training function, it needs a significant investment to initialize and maintain. Also Chapnick (2000) indicates that financial readiness generally refers to whether a learner or an institution is financially ready for e-learning process.

### 2.7.3. Research on E-learning Readiness

There are many surveys on the readiness of e-learning in various spheres like as health and business. We review some of them which are in educational areas:

Kaur and Abas (2004) determined the e-readiness of a group of Open University Malaysia receivers (learners) and enablers (tutors). This study employed a survey design involving a random sample of Open University Malaysia OUM receivers and enablers and data were gathered with the use of the e-learning Readiness Research Tool, a questionnaire developed by a panel of experts representing 12 Malaysian education and technology-oriented institutions. The 60-item questionnaire consisted of two parts: 16 items focused on gathering demographic data and 44 items exploring eight constructs: learner, management, personnel, content, technical, environmental, cultural and financial readiness. Altogether, 500 questionnaires were distributed to tutors and students. The response rate was 50% for tutors and 25% for students. The results show that the sample is reasonably well-equipped to engage in e-learning. It was found that 100% of the enablers and 97% of the receivers had direct access to computers. Reportedly, there was a great amount and varied use of the computer by enablers: 97% of them used the computer for e-mail, 91% for sourcing information, 89% for software applications and 77% for e-discussions. On a fewer scale, 87% of the receivers used the computer for e-mail and for academic purposes, while 68% of them used the computer for software applications. As far as academic purpose was concerned, 65% of the receivers used computers for assignments and 59% used them for seeking information. While 74% of the receivers had access internet from home, only 31% of the enablers did so.

Upon closer examination of the data, it was found that 29% of receivers and 69% of enablers accessed internet at their workplace. The preferred channels of communication for both receivers and enablers were the use of face-to-face communication, SMS and e-mail rather than online chatting or postal mail. In

terms of modes of learning, printed or written material, face-to-face lectures or tutorials, online materials and interactive CDs or DVDs were preferred over online conferencing and online tutorials or lectures.

85% of receivers and 54% of enablers felt that they would upgrade their professional and academic status through e-learning programs. This was corroborated by the finding that most of the receivers (77%) and the enablers (66%) would engage in e-learning if they were given an opportunity. In fact, many of the receivers and enablers agreed that in the future e-learning would be used for training in every job.

As a result they proved that receivers appeared to be more positive about their own level of readiness in comparison to enablers' perception of learner readiness. Also there appeared to be a high amount of preference among both receivers and enablers for non-electronic channels of communication and modes of learning in comparison to learning through e-networks. Finally, many individuals were concerned about the status of qualifications attained through e-learning.

So and Swatman (2006) evaluated the readiness of Hong Kong teachers for e-learning. In this survey, a questionnaire with 29 questions was sent to 200 teachers of primary and secondary schools and all items were measured on a five-point Likert scale, with 5 indicating "strongly agree" and 1 indicating "strongly disagree".

Although the amount of IT training in terms of time and opportunity offered to both primary and secondary school teachers is officially the same, primary school teachers still consider that they know less about what e-learning is than do their secondary school colleagues do. They also feel that primary school students do not have enough IT competencies to use e-learning technologies. Moreover, their confidence in their principals' understanding and support of using e-learning in teaching and learning is not as high as that the secondary school teachers.

Most primary teachers and their principals have had only 5-6 years experience in learning how to function computers, or in experimenting with integrating IT

into their teaching – and even less time to explore the use of e-learning in their curricula. Moreover, most primary school teachers are graduates of teacher training colleges and have had little opportunity to use computers in their pre-service training.

The responses to the survey identified a completely marked gender difference to e-learning readiness. In all three questions “I know what is e-learning”, “I am ready for integrating e-learning in my teaching”, and “I have enough IT competency to prepare the e-learning materials”, male teachers demonstrated higher levels of confidence than female teachers, although both groups had received equal amount of IT training from the government. A further gender difference was shown in response to the question about sharing/team work cultures, with female teachers responding far more positively than males.

Results indicated that teachers in Hong Kong are not yet fully prepared to use e-learning technologies for teaching and learning.

Lopes (2007) evaluated the e-learning readiness of ESTSP a Porto's Allied Health Sciences Higher Education Institution. Documentation review, observation and two questionnaires were applied to collect data. The first questionnaire gathered information about students' skills, their access to equipment and perceptions on e-learning. 273 students answered the questionnaire resulting in 17% response rate. Professors' questionnaire gathered information about ICT usage and skills, access to equipment and e-learning experience. 29 professors answered the questionnaire, almost half (49%) of ESTSP's full time professors.

Results provided ESTSP's reduced number of computers available for students' use outside classrooms also students expressed their concerns regarding Internet access, the reduced number of available computers. In professors' point of view, infrastructure was also not sufficient to allow a more comprehensive use of ICT so the technology dimension was classified with a low e-learning readiness.

The results revealed that a large percentage of professors use ICT (like PowerPoint presentations and other computer applications) in all their courses.

Findings showed that 83% of the professors use ICT technologies in all their courses and that 10% of existing courses already had some kind of web support. The majority of the students believed e-learning features contribute positively to the teaching/learning experience and some remarked that e-learning features (essentially lectures, grades and announcements) should be available on the web for every course. As for professors, there was a large percentage that never had any experience with e-learning. So the culture dimension was classified with a medium e-learning readiness.

Professors will probably require support, as the lack of skills was the justification most given to not use the web server and the third motive to not use ICT more extensively. It was positive to see that very few students never or rarely use the computer and the Internet and that very few students consider themselves as having bad skills using the computer or the Internet. Therefore, students will less likely need as much support as professors. With the described context, the Human Resources dimension was classified with a medium e-learning readiness.

The Financial dimension was probably the worst dimension in terms of e-learning readiness. At this moment no values have been revealed by top-level administration, but the predictions were not optimistic considering the difficult financial moment ESTSP was living. At this stage, the financial dimension was classified with a low e-learning readiness.

It was found that student's access to computers and Internet, one of the major initial concerns, was not as low as initially expected. Yet, this doesn't attenuate the need to invest in infrastructures, which lack was identified by professors and students. Together with the financial dimension, this is an area where ESTSP has a low e-learning readiness. Faculty skills are also an issue to consider.

Islam (2010) measures the students' e-readiness for e learning at the faculties of tourism and hotels in Egypt which influenced by a number of factors and dimensions such as: technical skills, learning skills and time management behavior. The data collection was carried out through interviews and

questionnaires. 62 students were selected simple randomly from 378 students with 95% confidence level at four faculties

Results showed that 53.2% of students are not able to use the networks especially the internet, about 46.8% respondents unable to download and upload files, 37.1% of students did not use any online library, 33.9% of students did not have experience with online forums and other discussions and communications applications, 29% of students had no access to a stable internet connection and computers. Results also revealed that faculties did not have enough technical infrastructures for the students. He finds out that 62.9% of the students did not have the skills to study independently. About 51.6% of them did not have the motivation to use information technology in education (learn online), majority of students are not self disciplined and do not accept the critical thinking. Findings showed that 58.1% of students did not have a respectable level of commitment and discipline to plan and manage time during their study. From all the above Islam believed that there was a shortage and insufficiency in technical skills, learning skills and time management skills of the respondent students.

Akaslan and Law (2011a) have conducted a web-based survey to investigate the extent to which students in the Higher Education Institutions (HEIs) in Turkey offering the subject of electricity are ready for e-learning. 704 responses (425 of which was complete) from the students of 417 departments in the related HEIs have been collected.

The first section of questionnaire consisted of several items to gather demographic data of the students, including their age, gender, education level, academic year, and affiliated institution. The second section of questionnaire was designed to measure the e-learning readiness of students by considering five main factors and several sub-factors (or attributes): technology, people, institution, content and training. There were altogether 78 items in the questionnaire.

The respondents were asked about their access to a desktop or laptop computer connected to the internet at their residence and at university and the

majority of them reported that they have access to the Internet at their residence and at university. The respondents' experiences and confidences in the usage of different ICT for their study, their attitudes towards e-learning and their traditional skills were investigated to find out the extent to which they are ready for e-learning. The mean scores of the items related to students' attitudes towards e-learning were found to be higher than the expected level of readiness. The respondents were also asked whether e-learning is currently implemented in their own institution at three levels: departmental, faculty and university. Results imply that the respondents consider that e-learning can be integrated into theory and practice to enhance the quality of the courses on the subject of electricity. It can be easily interpreted that the respondents hold positive attitudes towards e-learning because their responses show that they believe e-learning would be free of effort and would enhance their learning. Findings also indicate that the respondents, their peers and teachers highly need training for e-learning and their institutions do not have sufficient facilities to implement e-learning.

Whilst the findings revealed that the students were sufficiently ready for e-learning, training for e-learning is considered essential for enhancing student e-learning readiness.

Akaslan and Law (2011b) investigated to measure which higher education institutions HEIs associated with the science of electricity in Turkey are ready for e-learning. To address this issue, a web-based survey was sent out to 417 programs in 360 HEIs in Turkey. More than 1206 academic staff were invited to participate in the survey with 289 answering all the questions and 53 some of them. Descriptive and inferential statistics were computed. They examined the e-learning readiness of HEIs with a 41-item web based survey which is based on Kaur and Abas' conceptual model of e-learning. In this survey instructors' readiness were evaluated in three aspects: readiness, acceptance and training. The instrument also had four identified factors such as: technology, content, institution and people.



The mean score for the accessibility of technology was under the expected readiness level for e-learning. Experiences of the participants in ICT usage were mostly sufficient for e-learning, although their experiences of using social network sites and instant messaging for synchronous communication were under the expected level.

The results show that the participants in those institutions have sufficient level of confidence in using information and communication tools (ICT). Participants have information regarding e-learning; they feel that they are ready for e-learning and have sufficient competence and they feel their managers' support for e-learning.

Participants also believed that e-learning can enhance the practical part of the subject of electricity and can be integrated into theory to enhance the quality of the courses on electrical engineering but not in practice.

The respondents hold positive attitudes towards e-learning, however they do not believe that e-learning enables them to accomplish their teaching more effectively than the campus-based approach.

Results indicate that both females and males believe highly need for training, for their students and for their colleagues. Additionally, they think that their institutions do not have sufficient facilities to implement e-learning.

According to results female participants do not believe in the importance of training for e-learning as much as the males do, or they feel they are more ready for e-learning and have the same feeling for other people, namely, students and administrative personnel. In summary, the male participants are more positive about the e-learning conditions in terms of facilities and training than their female counterparts and age is also an influencing factor for the perceived e-learning readiness with the 24-54-year-old group holding more positive views than their younger and older counterparts.

Overall, the findings imply that the academic staff in the HEI associated with the subject of electricity in Turkey generally show positive experiences, confidences and attitudes towards e-learning. In spite of the fact that their readiness seems

to be adequate, their attitudes towards e-learning must be strengthened in order to facilitate effective adoption of e-learning.

Soydal, Alir and Ünal (2012) investigated the e-learning readiness of the academic staff of Hacettepe University Faculty of Letters (HUFL). In order to collect data a 37-item questionnaire along with some demographic questions is used. Staff was visited in person and data was obtained from 158 (47% of whole population) academic staff from 16 different departments of HUFL.

Results revealed that in general, e-learning was not being used in the departments or individually by the academic staff of HUFL. Staff believed that they were not ready to deal with e-learning materials but they are confident to use basic web and office applications. Results also pointed out the concerns of the academics about the lack of training.

Findings indicate no significant gender differences in terms of e-learning readiness but there are statistically significant differences among the ages of the respondents and the mean scores for usage of social network sites, computers confidently, web browsers confidently and search engines confidently. 25-34 years of age have higher points than other groups. This can be interpreted as younger academic staff is more confident while using Internet and office software. Scores also suggest that professors are not familiar enough with the university's facilities for e-learning.

In summary, results reveal that the majority of HUFL are not ready for e-learning. The lowest e-learning readiness scores belong to departments of Philosophy, Anthropology and French Language and Literature. Department of Information Management has the highest score.

All the departments thought they need to be trained for the e-learning environment which means almost all the departments do not feel themselves comfortable for e-learning and its applications. In some departments such as, Anthropology, French Language and Literature, History of Art and Turkish Language and Literature, not only "Readiness" or "Training" scores but also the "Acceptance" scores were low which seems they are not so much eager about e-learning and the reason of this could be the nature of their field.

According to previous research there is no e-learning in Faculty of Letters of Hacettepe University (except some e-courses which are offered in German Language and Literature and Information Management departments). Although there is a research which evaluated the e-learning readiness of instructors no research is conducted on students. This research is an attempt to fill this gap.

#### **2.7.4. The Importance of Instructors' and learners' Roles in E-learning**

In the new e-learning environment, the roles of instructors and students are also changing in various ways. The success of e-learning depends on human resources, so both instructors and learners who practice e-learning need to be open-minded and match themselves to modern technology.

The classroom instructor turns into an online instructor, so instructor is no longer the sole provider of information who transmits knowledge to the learners and they must have chains of new skills and abilities. On the other hand, the student-centered learning expects variety of aptitudes from learners to be able to educate in never-ending oceans of information environment. It means that in response to rapid changes, both instructors and learners will have to adjust themselves to new roles and responsibilities.

The role of instructor is significant in effectiveness and success of all kinds of education, particularly in distance education, instructors' conception of e-learning and its usefulness plays a vital role (Condie, & Livingston, 2007 , p. 337-338) and their positive attitude toward applying this new system as a teaching assisted tool is demanded for e-learning success (Liaw, Huang, & Chen, 2007, p. 1067).

Student is the most significant participant in e-Learning, since e-learning is a student-centered environment, high motivated and self-confident students can cause better e-learning results (Baeten, Kyndt, Struyven, & Dochy, 2010, p. 245). In addition, students should have computer skills to be successful in this system.

Consequently, it can be said that learners' and instructors' readiness, are one of the most important factors that influence the success of e-learning. Therefore before implementing any e-learning system the evaluation of the readiness of instructors and learners from the aspect of use of technology, acceptance, self confidence and training is highly recommended.

In this study e-learning readiness of both instructors and learners of Faculty of Letters of Hacettepe University will be examined.

## **CHAPTER 3**

### **RESEARCH METHOD AND DESIGN**

This chapter describes the overall design of the study. Population, sample selection, data collection instruments, data collection procedures, data analysis and limitations of the study are going to be presented.

### **3.1. OVERALL DESIGN OF THE STUDY**

This study investigates the extent to which the Faculty of Letters of Hacettepe University is ready for e-learning. It also examines institutional and individual readiness based on the perception of instructors and senior students. The subjects of this study include 141 instructors and 311 senior students from 16 departments of Faculty of Letters.

### **3.2. SAMPLING PROCEDURE**

This study was carried out in 16 departments of Faculty of Letters of Hacettepe University. The target population for the study comprises instructors (including Professors, Associate Professors, Assistant Professors, Lecturers and Research Assistants) and senior students. Although research assistants are not directly involved in instruction (teaching) because they assist their professors and they are future instructor, they are included in the study.

As for the students, due to large number of students enrolled in the Faculty and difficulties to reach required number of students from each department and each grade, research is limited with senior students. It is considered that they have a better understanding of their departments, faculties, their needs and competencies.

#### **3.2.1. Population**

Total number of teaching staff including research assistants is 228<sup>3</sup>. 61 (26.8%) of which is Professors while 26 (11%) of which is Associate Professors and 47 (20.6%) of which is Assistant Professors. The number of Lecturers is 37 (16.2%) while the number of the Research Assistants, in other words future teaching staff, is second highest 57 (75%) after Professors (see Table 2).

**Table 2.**The total number of instructors

Department	Professor	Associate Professor	Assistant Professor	Lecturer	Research Assistant	Total	
	N	N	N	N	N	N	%
American Culture and Literature	0	3	3	3	3	12	5.3
Anthropology	2	1	1	1	2	07	3.1
Archeology	2	1	4	2	1	10	4.4
English Language and Literature	3	2	3	1	5	14	6.1
English Linguistics	2	0	3	2	3	10	4.4
French Language and Literature	4	0	2	0	3	09	3.9
German Language and Literature	5	0	2	4	1	12	5.3
History	4	3	5	2	3	17	7.5
History of Art	3	2	3	4	4	16	7.0
Information Management	5	3	2	1	5	16	7.0
Philosophy	6	1	2	1	4	14	6.1
Psychology	5	1	2	5	5	18	7.9
Sociology	7	3	5	2	3	20	8.8
Translation and Interpretation	2	2	8	3	8	23	10.1
Turkish Folklore	2	3	1	2	3	11	4.8
Turkish Language and Literature	9	1	1	4	4	19	8.3
Total	61	26	47	37	57	228	100

Total number of senior students in Faculty of Letters is 1589<sup>4</sup>. Distribution of the students according to departments can be seen on Table 3. Because there is no undergraduate level of education at the Department of Anthropology the number is zero. Based on figures it is seen that Department of Information Management has the highest number of students while Department of Psychology has smallest number of students on their final year.

**Table 3.**The total number of senior students

<sup>3</sup> According to the data provided by Faculty of Letters of Hacettepe University on 28.01.2013

<sup>4</sup> According to the data provided by Faculty of Letters of Hacettepe University on 28.01.2013

Department	Senior students	
	N	%
American Culture and Literature	090	5.66
Anthropology	000	0.00
Archeology	100	6.29
English Language and Literature	110	6.92
English Linguistics	078	4.91
French Language and Literature	062	3.90
German Language and Literature	132	8.31
History	111	6.99
History of Art	126	7.93
Information Management	162	10.20
Philosophy	077	4.85
Psychology	068	4.28
Sociology	111	6.99
Translation and Interpretation	142	8.94
Turkish Folklore	108	6.80
Turkish Language and Literature	112	7.05
Total	1589	100

### 3.2.2. Sampling Method and Sample Size

The stratified random sampling was used with a sampling ratio values as instructors, students and departments strata. In order to find sample size we use following formula (Baş, 2010, p. 39).

$$n = Nt^2p(1 - p)/d^2(N - 1) + t^2p(p - 1)$$

Where (n) is sample size, (N) is population size, confidence level (t) is significance value (1.96), the probability that the observed data would occur (p) is 0.50 and error rate (d) is 0.05. Using the above formula the sample size is calculated for instructors as 146 and for senior students as 311. According to the results of stratified random sampling, sample sizes for each group are calculated separately and shown in Tables 4 and 5.

Although stratified random sampling brings researchers a chance to work on an evenly distributed sample with a statistically high representative power, it requires to include exact number of participants from each sub-group. When sub-groups are small this brings some disadvantages and the risk of not being able to reach the targeted number of participants.

**Table 4.** The sample of instructor according to stratified sampling

Department	Professor	Associate Professor	Assistant Professor	Lecturer	Research Assistant	Total	
	N	N	N	N	N	N	%
American Culture and Literature	0	2	2	2	2	08	5.5
Anthropology	1	1	1	1	1	05	3.4
Archeology	1	1	2	1	1	06	4.1
English Language and Literature	2	1	2	1	3	09	6.2
English Linguistics	1	0	2	1	2	06	4.1
French Language and Literature	3	0	1	0	2	06	4.1
German Language and Literature	3	0	1	3	1	08	5.5
History	3	2	3	1	2	11	7.5
History of Art	2	1	2	3	3	11	7.5
Information Management	3	2	1	1	3	10	6.8
Philosophy	4	1	1	1	2	09	6.2
Psychology	3	1	1	3	3	11	7.5
Sociology	5	2	3	1	2	13	8.9
Translation and Interpretation	1	1	5	2	5	14	9.6
Turkish Folklore	1	2	1	1	2	07	4.8
Turkish Language and Literature	6	1	1	2	2	12	8.2
Total	39	18	29	24	36	146	100

**Table 5.** The sample of senior students according to stratified sampling

Department	Senior students	
	N	%
American Culture and Literature	18	5.79
Anthropology	00	0.00
Archeology	19	6.11
English Language and Literature	21	6.75
English Linguistics	15	4.82
French Language and Literature	12	3.86
German Language and Literature	26	8.36
History	22	7.07
History of Art	25	8.04
Information Management	32	10.29
Philosophy	15	4.82
Psychology	13	4.18
Sociology	22	7.07
Translation and Interpretation	28	9.00
Turkish Folklore	21	6.75
Turkish Language and Literature	22	7.07
Total	311	100

Despite all our effort in this research it was not possible to include three professors from History Department, one Professor from Archeology



Department and one Lecturer from Information Management Department. Therefore the sampled population for instructors decreased to 141.

### **3.3. DATA COLLECTION PROCEDURES**

The data for the study was gathered from 141 instructors and 311 senior students in all departments of Faculty of Letters of Hacettepe University during 2012/2013 academic year (Spring Semester).

#### **3.3.1. Data Collection Instruments**

The questionnaires were used to collect data from respondents (Appendix 1 & Appendix 2). Items for both questionnaires were adopted from previous studies (Akaslan & Law, 2011a; Akaslan & Law, 2011b; Soydal, Alir & Ünal, 2012). The questions were modified to suit the Faculty of Letters of Hacettepe University. Instructors' questionnaire had three main parts: respondents' demographic data, their perceptions for institutional readiness and personal readiness for e-learning. The third part was organized around four separate factors included: use of technology, self confidence, acceptance and training. Factors and the items for instructors in a consistent frame sequence are: institution (items 8.1-8.8), technology (items 12.1-12.11), self confidence (items 13.1-13.16), acceptance (items 14.1-14.11) and training (items 15.1-15.3). This questionnaire included 15 questions and 49 items.

In a similar way the questionnaire of students has three sections: respondents' demographic data, their perception for institutional readiness and personal readiness for e-learning. Different than instructors' the third part was organized around five separate factors included: access to technology, use of technology, self confidence, acceptance and training. Factors and the items for students are also organized in a consistent sequence: institution (items 5.1-5.6), availability of technology (items 8.1-8.6), use of technology (items 9.1-9.11), self

confidence (items 10.1-10.12), acceptance (items 11.1-11.7) and training (items 12.1-12.3). This questionnaire included 11 questions and 45 items.

It must be mentioned that in both questionnaires an extra option as “I do not know” was given to respondents for institutional readiness to cover the probability of not being informed of question.

### **3.3.2. Piloting of the Data Collection Instrument**

In a pilot survey a preliminary draft of the questionnaires were tested to improve the clarity of the question items. A sample of 10 instructors and 10 students from different departments of Faculty of Letters of Hacettepe University were selected by simple random method and given the questionnaire to read and comment on the meaningfulness of the question items. Then some changes applied on questions.

Joppe (2000, p. 1) provides the following definition for validity: Validity determines whether the research truly measures that which it was intended to measure or how accurate the research results are. In other words, validity shows if the research instrument allows you to hit the exact aim of your research object. Researchers generally determine validity by asking sequences of questions, and will often look for the answers in the research of others. Items of the questionnaires of this research were adopted from previous studies (Akaslan & Law, 2011a; Akaslan & Law, 2011b; Soydal, Alir & Ünal, 2012), advices of experts was also considered during preparation of questionnaires. Thus validity of questionnaires is considered acceptable.

Reliability refers the extent to which studies can be replicated with the same results (Yin, 2003). In other words (Joppe, 2000, p. 1) reliability is the extent to which results are consistent over time and an accurate representation of the total population under study is referred to as reliability and if the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable. Statistically, the Cronbach's alpha could be used to assess the reliability of an instrument. Reliability values of 0.7 and

above are considered by many researchers as acceptable (George & Mallery 2003, p. 231). In general, they have mentioned that if the reliability coefficient of Cronbach's Alpha is less than 0.5, reliability is considered unacceptable; if in the 0.5 – 0.6 range, it is poor; if in the 0.7 – 0.8 range, it is acceptable; if in the 0.8 – 0.9 range, it is good and if it is over 0.9, the reliability is excellent.

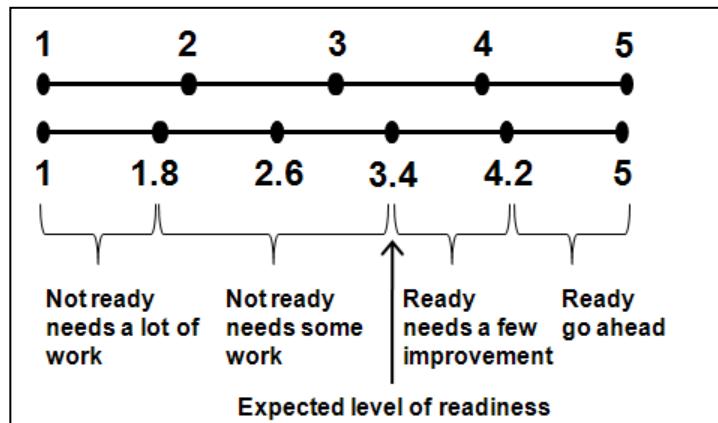
A summary of the reliability statistics of the data from the SPSS is presented in Table 6. It indicates that the all measures produced a composite alpha of more than 0.7 which indicates statistical reliability.

**Table 6.** Cronbach's Alpha Reliability test for dimensions

Multidimensional items	Instructors			Students		
	Number of Items	Cronbach's Alpha (Pilot)	Cronbach's Alpha (All)	Number of Items	Cronbach's Alpha (Pilot)	Cronbach's Alpha (All)
Institutional Readiness	08	.882	.879	06	.771	.855
Availability of Technology	-	-	-	06	.955	.926
Individual Technological Readiness	12	.901	.839	11	.719	.766
Individual Confidence Readiness	16	.952	.919	12	.838	.873
Individual Acceptance Readiness	11	.811	.952	07	.911	.953
Individual Training Readiness	03	.820	.883	03	.937	.867

### 3.4. DATA ANALYSIS PROCEDURES

Except six questions in instructors' questionnaire and three questions in students' questionnaire which require yes/no answers, other items in the questionnaires are based on a five-point Likert-Scale with the leftmost and rightmost anchors being "Strongly Disagree" and "Strongly Agree". The Likert-Scale questions were coded with 1 indicating the lowest readiness and 5 the highest. As the choices were coded as 1, 2, 3, 4 or 5, it is suggested that the mean score of 3.40 can be identified as the expected level of readiness for e-learning. It is because a five-point scale contains 4 intervals and 5 categories with the ratio 4 / 5 being equal to 0.8 (Aydın & Taşçı, 2005, p. 250) (see Figure 2).



(Aydın & Taşçı, 2005, p. 250)

**Figure 2.** E-learning readiness assessment scale

This scale is used by other researches like as Akaslan and Law (2011a), Akaslan and Law (2011b), Soydal, Alır and Ünal (2012), Sim, Wee, and Then (2011) and Purnomo and Lee (2010).

In order to assess the differences concerning the readiness factors between departments of Faculty of Letters of Hacettepe University descriptive statistics and cross-tabulation analysis (Chi-Square) tests were used.

### 3.5. LIMITATIONS OF THE STUDY

The results of this study are limited with the perceptions and experiences of the sample group. The limitation which was forced by stratified random sampling made it too difficult to find the exact samples among instructors and led to some unfilled questionnaires.

During the analysis stage the researcher had to perform each statistical analysis technique to each different sections of the questionnaire. Despite these limitations, it should be noted that this study would hopefully contribute to new plans and perspectives about e-learning in Faculty of

Letters of Hacettepe University and will provide an idea about e-learning readiness of both instructors and students.

## **CHAPTER 4**

### **ANALYSIS and INTERPRETATION of FINDINGS for INSTRUCTORS**

This chapter is divided into two parts: The first part reports the descriptive statistics among items in the study whereas the second part compares the mean scores of variables such as gender, age, department and status of the respondents to find out whether there are significant differences with respect to these variables.

#### **4.1. DESCRIPTIVE STATISTICS**

The study revealed that the majority of the participants are female 81 (55.5%). The age groups of the respondents are categorized as follows: 4 (2.8%) under 24 or 24; 25 (17.7%) between 25-30; 22 (15.6%) between 31-36; 24 (17%) between 37-42; 29 (20.6%) between 43-48; 20 (14.2%) between 49-54; 12 (8.5%) between 55-60; 4 (2.8%) between 61-66 and 1 (0.7%) over 67 or 67 years old. This indicates that more than 80% of the participants are between 25 and 54 years old.

Another criterion to categorize the participants is their status: 35 (24%) are professors; 18 (12.3%) are associate professors; 29 (19.9%) are assistant professors; 23 (15.8%) are lecturers and 36 (24.7%) are research assistants.

##### **4.1.1. Findings Regarding Overall Readiness for E-learning**

The number, mean, and standard deviation of the scores of the majority of the items in the study are presented in the following tables. The expected readiness level (3.40) is shown by “ $M_o$ ”.

Table 7 illustrates the overall mean score of the instructors' responses and the mean scores of each factor. Mean scores for the factors can be used to identify

the areas of improvement in the Faculty. From table 8 it can be observed that the overall mean score is less than the expected level of readiness ( $M = 3.12 < M_o = 3.4$ ). Based on this result, it can be interpreted that Hacettepe University Faculty of Letters is not overall ready for e-learning. Improvement is needed especially on institutional readiness mean score of which is the lowest among others ( $M = 2.61 < M_o = 3.4$ ).

Acceptance ( $M = 3.18$ ), self confidence ( $M = 3.09$ ) and use of technology ( $M = 3.14$ ) have the mean scores, although not too low, below the expected level and this shows that the readiness for these items are not sufficient to start e-learning and they all need improvement.

The only factor mean score which is higher than the expected readiness level ( $M = 4.14 > M_o = 3.4$ ) is for training. This shows that there is a good acceptance for training and instructors are ready to have training on e-learning. This could be an indicator of their awareness of insufficient overall readiness for e-learning and should be seen as a positive and encouraging finding.

**Table 7.** Instructors' mean scores for each factor

Factor	M	SD
Institutional readiness	2.61	1.187
Use of technology readiness	3.14	1.502
Self confidence readiness	3.09	1.335
Acceptance readiness	3.18	1.065
Training readiness	4.14	0.864
Overall	3.12	1.314

After reporting overall readiness scores for all main factors we are going to evaluate items under each factor.

In the following sections institutional readiness (8 items), use of technology (11 items), self confidence (16 items), acceptance (11 items) and training (3 items) dimension of e-readiness will be evaluated.

#### 4.1.2. Institutional Readiness

For the institutional readiness, the instructors were asked about hardware and software availability at their departments, because e-learning is facilitated by the access to Internet and a computer. More than 90% of instructors claimed that they have access to Internet and computers at their departments. The respondents were also asked whether e-learning is currently implemented in their own department and 130 (92.2%) claim that they do not have e-learning in their departments. 8 instructors from German Language and Literature Department 4 instructors from Information Management Department claim that there are some which sometimes are presented electronically in their departments. Findings indicate that items within "Institutional Readiness" received low scores. Only 34 (24%) of instructors think that hardware facilities and 26 (18.5%) think that software facilities in their departments are enough for e-learning. The number of those who think their department is ready for e-learning is 23 (16.3%). Majority thinks that there are problems to be solved before e-learning is implemented (only 10 (7.1%) sees no problem). Findings show those who find the speed 36 (25.5%) and stability 38 (27%) of Internet satisfactory is less than 30%. Almost one fourth thinks there is top level administrative support for e-learning and the personnel are keen on e-learning. Except Internet issues 10 to 17% reported that they have no idea about other factors regarding institutional readiness (see Table 8).

As can be seen from Table 9, mean scores for instructors' perceptions for institutional readiness are not only lower than the expected readiness level ( $M_o = 3.4$ ) but also lower than 2.6. It means, the institutional readiness for e-learning is far from being satisfactory and needs a lot of work. These findings indicate that there is lack of infrastructure in the departments and facilities are not sufficient to implement e-learning. Therefore, the Faculty of Letters should identify proper strategies to improve facilities and solve related problems before embarking on e-learning.



**Table 8.** Institutional readiness from instructors' perspective

Item Identifier	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree		I do not Know		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
The hardware facilities of my department are enough for e-learning.	10	7.1	24	17.0	25	17.7	35	24.8	34	24.1	13	9.2	141	100
The software facilities of my department are enough for e-learning.	07	5.0	19	13.5	32	22.7	37	26.2	29	20.6	17	12.1	141	100
The speed of the internet access at my department is satisfactory.	11	7.8	25	17.7	37	26.2	30	21.3	29	20.6	09	6.4	141	100
The stability of the internet access at my department is satisfactory.	08	5.7	30	21.3	27	19.1	39	27.7	32	22.7	05	3.5	141	100
The top-level administration of my department supports the use of e-learning in my department.	12	8.5	28	19.9	43	30.5	19	13.5	17	12.1	22	15.6	141	100
The personnel are keen of using e-learning in my department.	09	6.4	27	19.1	49	34.8	17	12.1	15	10.6	24	17.0	141	100
My department is ready for e-learning.	04	2.8	19	13.5	39	27.7	39	27.7	23	16.3	17	12.1	141	100
There are no problems that need to be solved before e-learning program can be implemented at my department.	06	4.3	04	2.8	24	17.0	59	41.8	33	23.4	15	10.6	141	100

**Table 9.** Mean scores for institutional readiness from instructors' perspective

Item Identifier	N	Mean	Std.
			Deviation
The hardware facilities of my department are enough for e-learning.	128	2.54	1.279
The software facilities of my department are enough for e-learning.	124	2.50	1.172
The speed of the internet access at my department is satisfactory.	132	2.69	1.243
The stability of the internet access at my department is satisfactory.	136	2.58	1.233
The top-level administration of my department supports the use of e-learning in my department.	119	2.99	1.175
The personnel are keen of using e-learning in my department.	117	2.98	1.098
My department is ready for e-learning.	124	2.53	1.063
There are no problems that need to be solved before e-learning program can be implemented at my department.	126	2.13	0.999

### 4.1.3. Use of Technology Readiness

Before questioning about the use of technology readiness, the instructors were asked about accessibility of the Internet connected computer from their residence. More than 90% of instructors claimed that they have access to internet and computer at their residence and more than 60% have access to internet-connected smart phone. This means that they have access to basic facilities which is needed for e-learning from their home as well as from their office.

When we investigate instructors' use of technology readiness we see that although at different frequency all of them use Internet as an information source and also use e-mail to communicate with their students and colleagues. It is more or less the same with office software (only 2 (1.4 %) do not use them at all).

More than half of the subjects indicate the frequency of their Internet, e-mail and office software usage is "almost always". Use of social network, web 2.0 tools, special softwares such as SPSS, instant messaging, online forums and mobile technologies to connect Internet are over 65%. On contrary 94 (66.7%) never used learning management systems which are one of the most important for e-learning.

**Table 10.** Instructors' use of technology readiness

Item Identifier	Almost Always		Sometimes		Occasionally		Rarely		Never		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
I use internet as information source.	76	53.9	49	34.8	13	09.2	03	02.1	00	00.0	141	100
I use e-mail as the main communication tool with my students and colleagues.	76	53.9	51	36.2	10	07.1	04	02.8	00	00.0	141	100
I use office software (e.g. Microsoft Office PowerPoint) for content delivery and demonstration.	82	58.6	37	26.4	17	12.1	02	01.4	02	01.4	140	100
I use social network sites (e.g. Facebook, Twitter).	35	24.8	37	26.2	27	19.1	11	07.8	31	22.0	141	100
I use specific software (e.g. SPSS).	24	17.0	23	16.3	22	15.6	24	17.0	48	34.0	141	100
I use instant Messaging (e.g. MSN, Skype).	24	17.0	26	18.4	38	27.0	25	17.7	28	19.9	141	100
I use Web 2.0 tools (e.g. Blog, wiki) to share information.	12	08.5	15	10.6	39	27.7	26	18.4	49	34.8	141	100
I use file hosting services (e.g. Google Documents, Dropbox).	20	14.2	27	19.1	42	29.8	23	16.3	29	20.6	141	100
I use learning management systems (e.g. Blackboard, Moodle).	03	02.1	08	05.7	18	12.8	18	12.8	94	66.7	141	100
I use online forum and chat to communicate with my colleagues.	16	11.3	18	12.8	39	27.7	31	22.0	37	26.2	141	100
I use mobile technologies (Smartphone) to connect internet.	33	23.4	19	13.5	33	23.4	18	12.8	38	27.0	141	100

However, since there is no e-learning practice in the Faculty it is normal and expected that instructors do not use these learning management systems. Their confidence in using other kinds of software and e-systems, however, is an indicator which shows if necessary they can learn and use this kind of software (see Table 10).

As can be seen from Table 11 mean scores of the same items confirm our interpretations. Mean scores of items for using Internet as an information source, using e-mail to communicate and using office software are not only higher than the expected readiness level ( $M_o = 3.4$ ) but also higher than 4.2 which means, the readiness for these sub factors are highly sufficient for e-learning. However mean scores of two items for using Web 2.0 tools and using learning management tools are less than 2.6 which indicates these sub factors need improvement. Findings show that most of the instructors use internet often to communicate and find new information however many of them do not use Web 2.0 facilities and also learning management systems which both are critical and necessary for using e-learning. Additionally mean scores of using online forums, mobile technologies, specific softwares and file hosting services are lower than expected score and this abilities need to be worked on by instructors and opportunities should be provided them to improve these weak points.

**Table 11.** Mean scores for instructors' use of technology readiness

Item Identifier	N	Std.	
		Mean	Deviation
I use internet as information source.	141	4.40	0.746
I use e-mail as the main communication tool with my students and colleagues.	141	4.41	0.747
I use office software (e.g. Microsoft Office PowerPoint) for content delivery and demonstration.	140	4.39	0.862
I use social network sites (e.g. Facebook, Twitter).	141	3.24	1.473
I use specific software (e.g. SPSS).	141	2.65	1.507
I use instant Messaging (e.g. MSN, Skype).	141	2.95	1.359
I use Web 2.0 tools (e.g. Blog, wiki) to share information.	141	2.40	1.292
I use file hosting services (e.g. Google Documents, Dropbox).	141	2.90	1.322
I use learning management systems (e.g. Blackboard, Moodle).	141	1.64	1.044
I use online forum and chat to communicate with my colleagues.	141	2.61	1.308
I use mobile technologies (Smartphone) to connect internet.	141	2.94	1.513

#### 4.1.4. Self Confidence Readiness

Findings show that only 62 (44%) of instructors believe that they know what e-learning is. Thus the concept of e-learning is not sufficiently clear for most of the instructors. About more than 80% of instructors think that they have skills to operate a computer, use office software, use web browsers, use search engines and use digital file management tools. On contrary about more than 55% think that they do not have enough skills to use learning management systems, design web pages for e-learning, moderate online discussions, write study guides for e-learning and deal with issues related to e-learning. Additionally only 16 (11.3 %) have enough time to prepare e-learning materials. Only 38 (28 %) of instructors feel that they are ready to integrate e-learning in their teaching (see Table 12).

As can be seen from Table 13, as regard to the perceptions of the instructors the mean scores of items related to skills of operate a computer, use office software, use web browsers, use search engines, ability to solve problems associated with using computer and use digital file management tools under self confidence readiness are higher than the expected readiness level ( $M_o = 3.4$ ). Mean score for the ability of using search engines is 4.23 that indicates the highest level of readiness. Mean scores for ability to use learning management systems, design web pages for e-learning, moderate online discussions, write study guides for e-learning, deal with issues related to e-learning and have time to prepare learning materials are below 2.6 which show these items need improvement. The results show that the instructors have sufficient level of confidence in using computers, office software, web browsers, search engines and digital file management tools. Thus instructors have enough confidence about their ability to use general features and tools of technology. On the other hand they have low level of confidence in items which directly related to e-learning such as using authoring tools, learning management systems, designing web pages and writing study guides for e-learning.

**Table 12.** Instructors' self confidence readiness

Item Identifier	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
I have information about what e-learning is.	12	08.5	50	35.5	36	25.5	28	19.9	15	10.6	141	100
I have the skills to operate a computer.	36	25.5	78	55.3	15	10.6	10	07.1	02	01.4	141	100
I am able to use office software for content delivery and demonstration (e.g. Microsoft Office Power Point, Word, Excel).	41	29.1	76	53.9	15	10.6	06	04.3	03	02.1	141	100
I am able to use web browsers (Internet Explorer, Google Chrome).	55	39.0	65	46.1	11	07.8	08	05.7	02	01.4	141	100
I am able to use search engines (Google, MSN Search).	59	41.8	65	46.1	09	06.4	07	05.0	01	00.7	141	100
I can troubleshoot most problems associated with using a computer.	18	12.8	57	40.4	41	29.1	22	15.6	03	02.1	141	100
I can use digital file management tools (e.g. deleting or renaming a file on your computer).	69	48.9	44	31.2	12	08.5	14	09.9	02	01.4	141	100
I have knowledge and ability to prepare e-learning materials.	26	18.4	45	31.9	40	28.4	19	13.5	11	07.8	141	100
I can use authoring tools to create learning materials (e.g. Movie Maker, Microsoft Publisher).	17	12.1	27	19.1	35	24.8	40	28.4	22	15.6	141	100
I am able to use learning management systems (e.g. Blackboard, Moodle).	06	04.3	16	11.3	35	24.8	39	27.7	45	31.9	141	100
I am able to design Web pages for e-learning.	07	05.0	19	13.5	26	18.4	40	28.4	49	34.8	141	100
I am able to moderate online discussions.	06	04.3	22	15.6	33	23.4	39	27.7	41	29.1	141	100
I am able to write good study guides for e-learning.	01	00.7	16	11.3	37	26.2	42	29.8	45	31.9	141	100
I am able to deal with legal issues related to e-learning (copyrights, privacy).	02	01.4	22	15.6	29	20.6	35	24.8	53	37.6	141	100
I have enough time to prepare e-learning materials.	02	01.4	14	09.9	28	19.9	48	34.0	49	34.8	141	100
I feel that I am ready to integrate e-learning in my teaching.	07	05.0	31	22.0	37	26.2	33	23.4	33	23.4	141	100

Additionally they assert that they do not have enough time for e-learning and they are not familiar with legal issues related to e-learning and they feel that they are not ready to integrate e-learning in their teaching. Consequently findings indicate a need for training regarding e-learning technologies and tools.

**Table 13.** Mean scores for instructors' self confidence readiness

Item Identifier	N	Mean	Std. Deviation
I have information about what e-learning is.	141	3.11	1.147
I have the skills to operate a computer.	141	3.96	0.882
I am able to use office software for content delivery and demonstration (e.g. Microsoft Office Power Point, Word, Excel).	141	4.04	0.874
I am able to use web browsers (Internet Explorer, Google Chrome).	141	4.16	0.897
I am able to use search engines (Google, MSN Search).	141	4.23	0.834
I can troubleshoot most problems associated with using a computer.	141	3.46	0.975
I can use digital file management tools (e.g. deleting or renaming a file on your computer).	141	4.16	1.039
I have knowledge and ability to prepare e-learning materials.	141	3.40	1.164
I can use authoring tools to create learning materials (e.g. Movie Maker, Microsoft Publisher).	141	2.84	1.251
I am able to use learning management systems(e.g. Blackboard, Moodle).	141	2.28	1.155
I am able to design Web pages for e-learning.	141	2.26	1.210
I am able to moderate online discussions.	141	2.38	1.181
I am able to write good study guides for e-learning.	141	2.19	1.035
I am able to deal with legal issues related to e-learning (copyrights, privacy).	141	2.18	1.144
I have enough time to prepare e-learning materials.	141	2.09	1.034
I feel that I am ready to integrate e-learning in my teaching.	141	2.62	1.205

#### 4.1.5. Acceptance Readiness

When we investigate instructors' acceptance readiness we see that generally less than half of them agree with items that show their acceptance of e-learning. 47 (33.3%) of instructors are keen to prepare e-learning materials.

Between 38.3% and 43.2% believe that e-learning can enhance the quality of their teaching, the quality of theoretical or practical parts of their subject and increase their productivity. Less than 46% believe that students find it easy to use e-learning and will like it. Only 51 (36.1%) believe that e-learning enables them to accomplish their teaching more effectively than the traditional

classroom-based approach. Additionally less than half of instructors believe that implementation of e-learning will be easy and they support it (see Table 14).

According to table 15 mean scores of the same items confirm our interpretations. The only mean score which is higher than the expected readiness level ( $M = 3.45 > M_o = 3.4$ ) is about instructors' belief that students find it easy to use e-learning.

Instructors' responses show that they do not believe that e-learning enables them to accomplish their teaching more effectively than the traditional classroom-based approach also they think e-learning do not help them to increase their productivity and quality of their teaching so they are not interested to support implementation of e-learning in their departments. It can be easily interpreted that the instructors have low acceptance towards e-learning.



**Table 14.** Instructors' acceptance readiness

Item Identifier	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
I am keen to prepare e-learning materials	11	07.8	36	25.5	49	34.8	30	21.3	15	10.6	141	100
I believe that e-learning can enhance the quality of the theoretical part of my subject.	15	10.6	43	30.5	50	35.5	19	13.5	14	09.9	141	100
I believe that e-learning can enhance the quality of the practical part of my subject	13	09.2	41	29.1	50	35.5	22	15.6	15	10.6	141	100
I believe my students will like e-learning.	13	09.2	50	35.5	58	41.1	14	09.9	06	04.3	141	100
I believe that my students find it easy to use e-learning.	15	10.6	49	34.8	64	45.4	10	07.1	03	02.1	141	100
I believe that e-learning can improve the quality of my teaching	13	09.2	48	34.0	56	39.7	13	09.2	11	07.8	141	100
I believe that using e-learning can increase my productivity.	14	09.9	43	30.5	56	39.7	16	11.3	12	08.5	141	100
I believe that e-learning enables me to accomplish my teaching more effectively than the traditional classroom-based approach.	14	09.9	37	26.2	55	39.0	19	13.5	16	11.3	141	100
I believe that e-learning enables learners and instructor to communicate and interact better with one another.	13	09.2	35	24.8	54	38.3	20	14.2	19	13.5	141	100
I believe that implementation of e-learning will be easy.	12	08.5	32	22.7	61	43.3	26	18.4	10	07.1	141	100
I support implementation of e-learning in my department.	18	12.8	43	30.5	48	34.0	18	12.8	14	09.9	141	100

**Table 15.** Mean scores for instructors' acceptance readiness

Item Identifier	N	Mean	Std.
			Deviation
I am keen to prepare e-learning materials	141	2.99	1.102
I believe that e-learning can enhance the quality of the theoretical part of my subject.	141	3.18	1.112
I believe that e-learning can enhance the quality of the practical part of my subject	141	3.11	1.113
I believe my students will like e-learning.	141	3.35	0.935
I believe that my students find it easy to use e-learning.	141	3.45	0.857
I believe that e-learning can improve the quality of my teaching	141	3.28	1.022
I believe that using e-learning can increase my productivity.	141	3.22	1.056
I believe that e-learning enables me to accomplish my teaching more effectively than the traditional classroom-based approach.	141	3.10	1.117
I believe that e-learning enables learners and instructor to communicate and interact better with one another.	141	3.02	1.143
I believe that implementation of e-learning will be easy.	141	3.07	1.019
I support implementation of e-learning in my department.	141	3.23	1.138

#### 4.1.6. Training Readiness

For the last part of the study, the participants were required to answer three questions to find out whether there is a need of training for e-learning before it is implemented. Findings indicate that more than 78% of instructors believe training is highly needed for themselves, their students and personnel of their departments (see Table 16).

**Table 16.** Instructors' training readiness

Item Identifier	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
	I need training on e-learning.	52	36.9	59	41.8	20	14.2	08	5.7	02	1.4	141
My students need training on e-learning.	54	38.3	58	41.1	27	19.1	01	0.7	01	0.7	141	100
The personnel of your department need training.	59	41.8	56	39.7	22	15.6	02	1.4	02	1.4	141	100

According to Table 17 mean scores of all items in this category are higher than the expected readiness level ( $M_o = 3.4$ ) which means the readiness of training is highly satisfactory.

**Table 17.** Mean scores for instructors' training readiness

Item Identifier	N	Mean	Std. Deviation
I need training on e-learning.	141	4.07	.931
My students need training on e-learning.	141	4.16	.804
The personnel of your department need training	141	4.19	.853

## 4.2. INFERENCEAL STATISTICS (COMPARATIVE FINDINGS)

The differences that occur in the overall score for e-learning readiness according to instructors' demographic features such as gender, age, status, and department are also examined. Chi-Square test was used to verify statistical significance of differences in mean scores on mentioned variables.

### 4.2.1. Departmental Differences

A Chi-Square analysis has been conducted to see if department in other words discipline makes any difference in the instructors' perception for e-learning readiness.

According to Table 18 the difference between departments is statistically significant, and this difference exists in all factors which their "p" is less than 0.05.

**Table 18.** Differences according to instructors' departments (Chi-Square)

Factor	Value	df	Asymp. Sig. (2-sided)
Institution readiness	238.159	60	.000
Use of technology readiness	218.281	60	.000
Self confidence readiness	289.422	60	.000
Acceptance readiness	414.099	60	.000
Training readiness	162.811	60	.000
Overall	542.659	60	.000

Mean scores displayed in Table 19 reveal that the majority of Hacettepe University Faculty of Letters' departments are not ready for e-learning. The highest mean scores belong to the Department of Information Management and

German Language and Literature ( $M = 3.6 > M_o = 3.4$ ). This is because of their familiarity with the electronic environment. As it is already mentioned Information Management Department and German Language and Literature Department have some experience regarding to e-courses.

The departments of Philosophy, Anthropology, History of Art and French Language and Literature have the lowest e-learning readiness scores.

As a result, except Information Management Department and German Language and Literature Department, other departments have lower mean scores than expected score ( $M_o = 3.4$ ). They are not ready for e-learning and improvements needed before implementing e-learning.

Differences could be related to the nature of the discipline as well as the lack of knowledge on what e-learning exactly is or lack of time and confidence to transfer the course contents to the electronic environment. Consequently instructors might prefer face to face teaching with the students.

In addition Table 19 shows that the German Language and Literature Department has the best mean score ( $M = 3.7$ ) for Institutional readiness and ( $M = 4.1$ ) for acceptance readiness which could be considered as normal because they have e-courses. Department of Information Management has the best mean score ( $M = 3.9$ ) for use of technology readiness, German Language and Literature and Turkish Folklore have the best mean scores ( $M = 3.5$ ) for self confidence readiness. English Linguistics with the mean score of 4.9 is the most prepared department for training.

**Table 19.** Departmental differences for instructors' e-learning readiness

Department	Institution readiness		Use of technology readiness		Self confidence readiness		Acceptance readiness		Training readiness		Overall	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
American Culture and Literature	2.4	1.1	3.0	1.6	3.0	1.3	3.3	1.0	4.5	.59	3.1	1.3
Anthropology	2.4	1.2	2.8	1.6	2.3	1.3	2.8	.94	3.7	1.1	2.6	1.3
Archeology	2.6	1.3	3.2	1.5	3.3	1.5	2.9	1.2	3.6	1.4	3.1	1.4
English Language and Literature	2.1	1.2	3.2	1.5	2.9	1.3	2.8	1.1	4.1	.86	2.9	1.3
English Linguistics	2.6	1.2	3.6	1.3	3.2	1.5	3.6	1.2	4.9	.23	3.4	1.4
French Language and Literature	2.8	0.9	2.7	1.5	2.5	1.2	2.7	.91	3.3	1.0	2.7	1.2
German Language and Literature	3.7	1.0	3.0	1.3	3.5	1.2	4.1	.82	4.4	.83	3.6	1.2
History	2.9	1.1	3.3	1.3	3.2	1.3	3.4	1.0	4.0	.72	3.3	1.2
History of Art	2.1	1.0	2.8	1.2	2.8	1.2	2.6	.89	3.8	.87	2.7	1.1
Information Management	3.2	1.1	3.9	1.2	3.3	1.1	3.7	.91	4.5	.64	3.6	1.1
Philosophy	2.4	0.8	2.6	1.5	2.7	1.2	2.7	1.2	4.1	.77	2.7	1.3
Psychology	2.6	1.1	3.3	1.5	3.1	1.4	3.6	.89	4.6	.60	3.3	1.3
Sociology	2.6	1.1	2.9	1.5	3.4	1.1	3.1	.93	3.9	.74	3.2	1.2
Translation and Interpretation	2.6	1.0	3.0	1.4	2.9	1.2	3.2	.88	4.2	.69	3.1	1.2
Turkish Folklore	2.6	1.3	3.6	1.5	3.5	1.3	3.2	.92	4.5	.51	3.4	1.3
Turkish Language and Literature	2.2	1.2	3.2	1.3	3.1	1.2	3.2	.97	3.6	.78	3.0	1.2

#### 4.2.2. Status Differences

According to table 20 the differences according to status are statistically significant, and this difference exists in all factors (where “p” is less than 0.05).

**Table 20.** Differences according to instructors' status (Chi-Square)

Factor	Value	df	Asymp. Sig. (2-sided)
Institution readiness	55.866	16	.000
Use of technology readiness	76.487	16	.000
Self confidence readiness	100.468	16	.000
Acceptance readiness	95.646	16	.000
Training readiness	40.123	16	.001
Overall	132.894	16	.000

As shown in Table 21, the research assistants with the mean score of 3.22 have the highest readiness score among the others. As findings show their use

of technology readiness ( $M = 3.5$ ) and training readiness ( $M = 4.2$ ) are also the highest among other instructors. Probably they are young and more interest in using new technologies. The Professors have the highest score (2.8) in their perception for institutional readiness. This could be because they are well aware of institutional facilities than their younger colleagues. Professors have also the highest mean score (3.4) for acceptance readiness. As for training, scores for all status are very satisfactory.

**Table 21.** Differences according to instructors' status

Status	Institution readiness		Use of technology readiness		Self confidence readiness		Acceptance readiness		Training readiness		Overall	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Professor	2.8	1.2	2.8	1.5	2.9	1.3	3.4	1.0	4.1	0.9	3.09	1.3
Associate Professor	2.5	1.2	3.1	1.4	3.0	1.3	3.2	1.1	4.0	0.9	3.06	1.3
Assistant Professor	2.3	1.0	3.0	1.4	3.0	1.2	3.1	0.8	4.1	0.6	3.02	1.2
Lecturer	2.6	1.2	3.2	1.4	3.3	1.3	3.0	1.1	3.9	1.0	3.15	1.3
Research Assistant	2.7	1.0	3.5	1.4	3.2	1.3	3.0	1.0	4.2	0.7	3.22	1.2

#### 4.2.3. Gender Differences

According to table 22 the difference between readiness scores according to gender is statistically significant for institution, self confidence and acceptance readiness (their "p" is less than 0.05). On the contrary technology and training readiness do not change according to gender.

As shown in Table 23, the male instructors' overall readiness ( $M = 3.21$ ) is higher than female ( $M = 3.05$ ). These results indicate that the male instructors are more positive about e-learning conditions in terms of institution, acceptance and self confidence than their female counterparts.

**Table 22.** Differences according to instructors' gender (Chi-Square)

Factor	Value	df	Asymp. Sig. (2-sided)
Institution readiness	19.085	4	.001
Use of technology readiness	6.188	4	.186
Self confidence readiness	21.826	4	.000
Acceptance readiness	30.210	4	.000
Training readiness	8.720	4	.068
Overall	29.979	4	.000

**Table 23.** Differences according to instructors' gender

Factors	Female		Male	
	M	SD	M	SD
Institutional readiness	2.54	1.1	2.71	1.2
Use of technology readiness	3.14	1.5	3.14	1.4
Self confidence readiness	2.99	1.3	3.21	1.2
Acceptance readiness	3.06	1.0	3.34	1.0
Training readiness	4.14	0.9	4.14	0.7
Overall	3.05	1.3	3.21	1.2

#### 4.2.4. Age Differences

According to Table 24 the difference between age groups is statistically significant, and this difference exists in all factors (their "p" is less than 0.05).

As shown in Table 25, instructors between 25-30 years old (M = 3.26) have the highest overall readiness among other groups. They also have the highest training readiness (M = 4.3) and acceptance readiness (M = 3.3). It shows they are more ready regarding to have training and accept e-learning. On the contrary respondents between 55-60 years old (M = 2.81) show the lowest overall readiness among other groups.

For use of technology readiness 24 or less than 24 years old group is the best group. It could be because of their age they are more interested in using technology.

**Table 24.** Differences according to instructors' age (Chi-Square)

Factor	Value	df	Asymp. Sig. (2-sided)
Institutional readiness	128.848	28	.000
Use of technology readiness	136.627	32	.000
Self confidence readiness	200.602	32	.000
Acceptance readiness	146.603	32	.000
Training readiness	56.879	32	.004
Overall	195.557	32	.000

In summary, age is an influencing factor for the perceived e-learning readiness with the 25-30-year-old group having more positive views about e-learning than their younger and older counterparts. These findings are approximately the same as findings regarding the status. Since age increases as status this is expected.

**Table 25.** Differences according to instructors' age

Age	Institutional readiness		Use of technology readiness		Self confidence readiness		Acceptance readiness		Training readiness		Overall	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
24 or less than 24 years old	2.7	.91	3.8	1.3	3.1	1.4	2.9	.987	4.0	.603	3.21	1.2
Between 25-30 years old	2.7	1.1	3.5	1.4	3.3	1.3	3.0	1.04	4.3	.648	3.26	1.2
Between 31-36 years old	2.7	1.0	3.4	1.4	3.2	1.4	3.1	1.10	4.1	.917	3.22	1.3
Between 37-42 years old	2.3	1.1	3.2	1.3	3.2	1.2	3.1	1.14	3.9	.991	3.08	1.2
Between 43-48 years old	2.4	1.2	2.9	1.4	3.0	1.3	3.3	.948	4.2	.806	3.06	1.3
Between 49-54 years old	2.9	1.1	3.0	1.5	3.0	1.2	3.4	.953	4.3	.840	3.17	1.2
Between 55-60 years old	2.6	1.1	2.5	1.5	2.8	1.3	3.0	1.24	3.9	1.06	2.81	1.3



## CHAPTER 5

### ANALYSIS and INTERPRETATION of RESULTS for STUDENTS

This chapter is divided into two parts: The first part reports the descriptive statistics whereas the second part compares the mean scores to find out whether there were significant differences with respect to variables such as gender, age and department.

#### 5.1. DESCRIPTIVE STATISTICS

The study revealed that the majority of the participants are female 210 (67.5%). The age groups of the respondents are categorized as follows: There are 227 (73%) students between 21-23; 73 (23.5%) between 24-26; 6 (1.9%) between 27-29 and 5 (1.6%) 30 or more than 30 years old. This indicates that more than 96% of the students are between 21 and 26 years old which could be thought as normal because all of them are senior students.

The number, mean, and standard deviation of the scores of the majority of the items regarding e-readiness are presented in the following tables. The expected readiness level (3.40) is shown by " $M_o$ ".

##### 5.1.1. Overall Readiness for E-learning

Table 26 illustrates the overall mean score of the students as well as the mean scores of each factor. From the table it can be observed that the overall mean score is higher than the expected level of readiness ( $M = 3.45 > M_o = 3.4$ ). Based on this result, it can be interpreted that students of Hacettepe University Faculty of Letters are ready for e-learning.

Based on findings, mean scores for Institution factor (2.77) and Use of technology factor (3.33), are lower than the expected readiness level ( $M_o = 3.40$ ). This indicates that students are not satisfied with their departments'

technical facilities as well as their technology skills. Self confidence has the highest mean score (3.79) which shows that there is a good self confidence in e-learning among senior students and they are confident about their ability to use e-learning applications.

**Table 26.** Students' mean scores for each factor

Factor	M	SD
Institutional readiness	2.77	1.339
Availability of technology readiness	3.49	1.290
Use of technology readiness	3.33	1.287
Self confidence readiness	3.79	1.025
Acceptance readiness	3.50	1.023
Training readiness	3.72	1.006
Overall	3.45	1.215

Results show that except training readiness all other readiness factors of students have higher scores than instructors' scores. The students' overall readiness score is also higher than instructors' overall readiness score. Thus we can say that generally students are more ready than instructors for e-learning.

After reporting overall readiness scores for all main factors we are going to evaluate items under each factor. In the following sections institutional readiness (6 items), availability of technology readiness (6 items), use of technology (11 items), self confidence (12 items), acceptance (7 items) and training (3 items) dimension of e-readiness will be evaluated.

### 5.1.2. Institutional Readiness

As it can be seen from Table 27, items within "institutional readiness" received low scores. The ratio of students who think facilities in the Faculty are enough for e-learning is less than 40%.

**Table 27.** Institutional readiness from students' perspective

Item Identifier	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree		I do not Know		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
The hardware facilities of my department are enough for students.	26	08.4	90	28.9	40	12.9	91	29.3	51	16.4	13	04.2	311	100
The software facilities of my department are enough for students.	20	06.4	70	22.5	64	20.6	99	31.8	39	12.5	19	06.1	311	100
The speed of the internet access at my department is satisfactory.	20	06.4	85	27.3	62	19.9	82	26.4	46	14.8	16	05.1	311	100
The stability of the internet access at my department is satisfactory.	23	07.4	61	19.6	62	19.9	94	30.2	44	14.1	27	08.7	311	100
I have access to computer whenever I need at my faculty.	39	12.5	103	33.1	60	19.3	68	21.9	36	11.6	05	01.6	311	100
I can connect internet whenever I need at my faculty.	36	11.6	99	31.8	61	19.6	75	24.1	35	11.3	05	01.6	311	100

Although these ratios are a bit higher than the ratios obtained from instructors, it is still far from being satisfactory. Students, who claim that they have access to computer and Internet whenever they need are less than 50%. This should be because of the differences among departments. Since some departments have computer labs while others do not have it. There is a computer laboratory for all students in the Faculty, however when the whole number of the students in the entire Faculty is taken into account it is obviously not enough to satisfy the need of all students.

As can be seen from Table 28, according to the perceptions of the students the mean scores of items for sufficiency of hardware and software facilities, speed and stability of Internet and access to Internet and computer in their departments are lower than the expected readiness level ( $M_o = 3.4$ ). It means students are not satisfied with hardware and software facilities of their departments. They believe that the access, speed and stability of internet are also not satisfactory. We can conclude that neither instructors nor students think that Faculty of Letter's infrastructure is sufficient to start e-learning.

**Table 28.** Mean scores for institutional readiness items from students' perspective

Item Identifier	N	Mean	Std. Deviation
The hardware facilities of my department are enough for students.	298	2.83	1.272
The software facilities of my department are enough for students.	292	2.77	1.157
The speed of the internet access at my department is satisfactory.	295	2.83	1.199
The stability of the internet access at my department is satisfactory.	284	2.74	1.194
I have access to computer whenever I need at my department.	306	3.13	1.235
I can connect internet whenever I need at my department.	306	3.08	1.222

### 5.1.3. Availability of technology readiness

When we look at the technology readiness from students' residence perspective

**Table 29.** Availability of technology readiness in students' residence

Item Identifier	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
The hardware facilities are enough.	84	27.0	119	38.3	37	11.9	48	15.4	23	07.4	311	100
The software facilities are enough.	66	21.2	115	37.0	46	14.8	59	19.0	25	08.0	311	100
The speed of the internet access is satisfactory.	66	21.2	99	31.8	32	10.3	78	25.1	36	11.6	311	100
The stability of the internet access is satisfactory.	53	17.0	97	31.2	35	11.3	88	28.3	38	12.2	311	100
I have access to computer whenever I need.	107	34.4	121	38.9	24	07.7	45	14.5	14	04.5	311	100
I can connect internet whenever I need.	96	30.9	112	36.0	31	10.0	48	15.4	24	7.7	311	100

we see that situation is better compared to their departments. In their residence apart from Internet stability items received better scores.

More than 50% of students think that hardware and software facilities as well as Internet speed in their residence are enough for e-learning. Students who claim that they can access Internet (over 60%) and computer (over 70%) whenever they want get higher scores (see Table 29).

As can be seen from Table 30, regarding the perceptions of the students the mean scores of items for the stability and speed of Internet are lower than the expected readiness level ( $M_o = 3.4$ ) which means that they are not satisfied with stability and speed of Internet at their resident but other items are higher than 3.4. This shows that their hardware and software facilities, also their access to computer and internet at their resident are at a satisfactory level.

**Table 30.** Mean scores for availability of technology readiness in students' residence

Item Identifier	N	Mean	Std. Deviation
The hardware facilities are enough.	311	3.62	1.238
The software facilities are enough.	311	3.44	1.240
The speed of the internet access is satisfactory.	311	3.26	1.349
The stability of the internet access is satisfactory.	311	3.13	1.325
I have access to computer whenever I need.	311	3.84	1.177
I can connect internet whenever I need.	311	3.67	1.271

#### 5.1.4. Use of Technology Readiness

When we investigate students' use of technology readiness we see that although at different frequency most of them (more than 95%) use Internet as an information source, use e-mail to communicate with their instructors and class mates, use office software and also use social network sites. Which shows that majority of students have no problem with using technology. On the other hand 184 (59.2%) of students never used or rarely used learning management systems. 78 (25.2%) never used specific softwares. Additionally

**Table31.** Students' use of technology readiness

Item Identifier	Almost Always		Sometimes		Occasionally		Rarely		Never		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
I use internet as information source	106	34.1	146	46.9	50	16.1	07	02.3	02	00.6	311	100
I use e-mail as the main communication tool with my teachers and classmates.	74	23.8	128	41.2	80	25.7	25	08.0	04	01.3	311	100
I use office software (e.g. Microsoft Office PowerPoint).	70	22.6	130	41.9	84	27.1	23	07.4	03	01.0	310	100
I use social network sites (e.g. Facebook, Twitter).	136	43.7	99	31.8	41	13.2	20	06.4	15	04.8	311	100
I use specific software (e.g. SPSS).	24	07.8	60	19.4	95	30.7	52	16.8	78	25.2	309	100
I use instant Messaging (e.g. MSN, Skype).	68	21.9	95	30.5	91	29.3	34	10.9	23	07.4	311	100
I use Web 2.0 tools (e.g. Blog, wiki) to share information.	35	11.3	79	25.4	92	29.6	47	15.1	58	18.6	311	100
I use file hosting services (e.g. Google Documents, Dropbox).	51	16.4	91	29.3	82	26.4	54	17.4	33	10.6	311	100
I use learning management systems (e.g. Blackboard, Moodle).	26	08.4	36	11.6	65	20.9	69	22.2	115	37.0	311	100
I use online forum and chat to communicate with my colleagues.	34	10.9	56	18.0	91	29.3	67	21.5	63	20.3	311	100
I use mobile technologies (Smartphone) to connect internet.	91	29.3	77	24.8	69	22.2	33	10.6	41	13.2	311	100

students who use Web 2.0, file hosting services and online forums, frequently or sometimes are less than 50% (see Table 31).

As can be seen from Table 32, students' mean scores for six items which are related to use of Internet, e-mail, office software, social networks, instant messaging and mobile technologies are higher than the expected readiness level ( $M_o = 3.4$ ). It means regarding these sub factors students are ready for e-learning. On the other hand mean scores of the items related to use of learning management systems (e.g. Blackboard, Moodle), specific softwares, Web 2.0 tools and online forums are less than expected readiness level ( $M_o = 3.4$ ). This indicates that regarding these sub factors students are not ready for e-learning and improvement is necessary. We can conclude that neither instructors nor students have expected readiness level for using specific software, Web 2.0 tools, file hosting services, learning management systems and online forums. Additionally their mean score for using management systems are not only less than expected readiness level ( $M_o = 3.4$ ) but also less than 2.6. Since there is no e-learning in the Faculty, this is expected. Findings indicate need for improvement. On contrary, both instructors and students have expected readiness level for using Internet as an information source, using e-mail to communicate and using office software. As a result we can say that both students and instructors need improvement at least some cases for use of technology readiness.

**Table 32.** Mean scores for students' use of technology readiness

Item Identifier	N	Mean	Std. Deviation
I use internet as information source	311	4.12	0.799
I use e-mail as the main communication tool with my teachers and classmates.	311	3.78	0.942
I use office software (e.g. Microsoft Office PowerPoint).	310	3.78	0.913
I use social network sites (e.g. Facebook, Twitter).	311	4.03	1.124
I use specific software (e.g. SPSS).	309	2.68	1.258
I use instant Messaging (e.g. MSN, Skype).	311	3.49	1.164
I use Web 2.0 tools (e.g. Blog, wiki) to share information.	311	2.95	1.267
I use file hosting services (e.g. Google Documents, Dropbox).	311	3.23	1.223
I use learning management systems (e.g. Blackboard, Moodle).	311	2.32	1.302
I use online forum and chat to communicate with my colleagues.	311	2.78	1.265
I use mobile technologies (Smartphone) to connect internet.	311	3.46	1.358



### 5.1.5. Self Confidence Readiness

Findings show that 185 (59.5%) of students believe that they know what e-learning is. More than 90% believe they are able to use search engines. More than 70% of students think they have skills to operate computer, use office software, use web browsers, use digital file management tools, do their homework by using technological facilities and have enough time to do their homework by using technology. On contrary only 35% of them have the ability to use learning management systems (e.g. Blackboard, Moodle). Additionally about half of students think that e-learning is easy for them and they are ready for starting e-learning (see Table 33).

As can be seen from Table 34 the mean scores for all items apart from ability to use learning management systems are higher than the expected readiness level ( $M_o = 3.40$ ). It means students have expected confidence readiness level for having information about the concept of e-learning, operating a computer, using office software, using web browsers, using digital file management tools, doing their homework by using electronic technology facilities, having enough time do their homework by using electronic technology facilities, thinking that e-learning is easy for them and for being ready to start e-learning.

We can say that students' confidence readiness for e-learning is higher than instructors. Both of them have insufficient confidence readiness level regarding to use learning management systems.

**Table33.** Students' self confidence readiness

Item Identifier	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
I have information about what e-learning is.	56	18.0	129	41.5	69	22.2	46	14.8	11	03.5	311	100
I have the skills to operate a computer.	83	26.7	153	49.2	58	18.6	17	05.5	00	00.0	311	100
I am able to use office software for content delivery and demonstration (e.g. Microsoft Office Power Point, Word, Excel).	67	21.5	154	49.5	59	19.0	28	09.0	03	01.0	311	100
I am able to use web browsers (Internet Explorer, Google Chrome).	118	38.1	154	49.7	29	09.4	09	02.9	00	00.0	310	100
I am able to use search engines (Google, MSN Search).	117	37.6	165	53.1	20	06.4	08	02.6	01	00.3	311	100
I can troubleshoot most problems associated with using a computer.	56	18.0	133	42.8	85	27.3	29	09.3	08	02.6	311	100
I can use digital file management tools (e.g. deleting or renaming a file on your computer).	119	38.3	138	44.4	41	13.2	09	02.9	04	01.3	311	100
I am able to do my homework by using electronic technology facilities.	113	36.3	144	46.3	30	9.6	18	05.8	06	01.9	311	100
I have enough time to prepare my homework by using electronic technology facilities.	88	28.3	140	45.0	51	16.4	23	07.4	09	02.9	311	100
I am able to use learning management systems (e.g. Blackboard, Moodle).	34	10.9	75	24.1	86	27.7	62	19.9	54	17.4	311	100
I believe that e-learning is easy to use.	56	18.0	103	33.1	111	35.7	24	07.7	17	05.5	311	100
I feel that I am ready for e-learning.	58	18.7	99	31.9	108	34.8	30	09.7	15	04.8	310	100

**Table 34.** Mean scores for students' self confidence readiness

Item Identifier	N	Std.	
		Mean	Deviation
I have information about what e-learning is.	311	3.56	1.058
I have the skills to operate a computer.	311	3.97	0.821
I am able to use office software for content delivery and demonstration (e.g. Microsoft Office Power Point, Word, Excel).	311	3.82	0.906
I am able to use web browsers (Internet Explorer, Google Chrome).	310	4.23	0.735
I am able to use search engines (Google, MSN Search).	311	4.25	0.715
I can troubleshoot most problems associated with using a computer.	311	3.64	0.966
I can use digital file management tools (e.g. deleting or renaming a file on your computer).	311	4.15	0.851
I am able to do my homework by using electronic technology facilities.	311	4.09	0.927
I have enough time to prepare my homework by using electronic technology facilities.	311	3.88	0.996
I am able to use learning management systems (e.g. Blackboard, Moodle).	311	2.91	1.253
I believe that e-learning is easy to use.	311	3.50	1.047
I feel that I am ready for e-learning.	310	3.50	1.054

### 5.1.6. Acceptance Readiness

Results show that more than half of students are keen to start e-learning, believe that e-learning can enhance the quality of education, increase their productivity. They also believe that e-learning brings benefits for education, therefore they support implementation of e-learning in their departments. On contrary the ratio of students who believe that e-learning is more effective than the traditional classroom-based approach and enables learners and instructor to communicate and interact better with one another is less than 50% (see Table 35).

As can be seen from Table 36, students' mean scores for all items apart from items that e-learning is more effective than the traditional classroom-based approach and enables better communicate and interaction between instructors and classmates, are higher than the expected readiness level ( $M_o = 3.40$ ). It means students have positive attitudes towards e-learning because their responses show that they are keen to start e-learning, believe that e-learning can enhance the quality of education and increase their productivity.

**Table 35.** Students' acceptance readiness

Item Identifier	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
I am keen to start e-learning.	60	19.3	121	38.9	95	30.5	25	08.0	10	3.2	311	100
I believe that e-learning can enhance the quality of education.	51	16.4	123	39.5	101	32.5	27	08.7	09	2.9	311	100
I believe that using e-learning can increase my productivity.	52	16.7	122	39.2	103	33.1	24	07.7	10	3.2	311	100
I believe that e-learning is more effectively than the traditional classroom-based approach.	41	13.2	99	31.8	107	34.4	45	14.5	19	6.1	311	100
I believe that e-learning enables learners and instructor to communicate and interact better with one another.	41	13.2	102	32.8	105	33.8	41	13.2	22	7.1	311	100
I believe that e-learning have benefits for education.	46	14.8	125	40.2	105	33.8	21	06.8	14	4.5	311	100
I support implementation of e-learning in my department.	60	19.3	114	36.7	95	30.5	23	7.4	19	6.1	311	100

As result it can be seen that students' acceptance readiness is higher than instructors.

**Table 36.** Mean scores acceptance for students' readiness

Item Identifier	N	Mean	Std.
			Deviation
I am keen to start e-learning.	311	3.63	0.988
I believe that e-learning can enhance the quality of education.	311	3.58	0.960
I believe that using e-learning can increase my productivity.	311	3.59	0.963
I believe that e-learning is more effectively than the traditional classroom-based approach.	311	3.32	1.067
I believe that e-learning enables learners and instructor to communicate and interact better with one another.	311	3.32	1.083
I believe that e-learning have benefits for education.	311	3.54	0.976
I support implementation of e-learning in my department.	311	3.56	1.073

### 5.1.7. Training Readiness

For the last part of the study, the participants were required to answer three questions to find out whether there is a need of training for e-learning before it is implemented. Findings indicate that more than 58% of students believe training is highly needed for themselves, their instructors and their classmates (see Table 37).

**Table 37.** Students' training readiness

Item Identifier	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
	I need training on e-learning.	85	27.3	122	39.2	68	21.9	26	8.4	10	3.2	311
My teachers need training on e-learning.	71	22.8	111	35.7	98	31.5	19	6.1	12	3.9	311	100
My classmates need training.	70	22.5	106	34.1	111	35.7	16	5.1	08	2.6	311	100

According to Table 38 mean scores of all items in this category are higher than the expected readiness level ( $M_o = 3.4$ ) which means the readiness of training is highly satisfactory.

Consequently findings indicate that although instructors' training readiness level is higher than students', both have satisfactory training readiness level.

**Table 38.** Mean scores for students' training readiness

Item Identifier	N	Mean	Std. Deviation
I need training on e-learning.	311	3.79	1.037
My teachers need training on e-learning.	311	3.68	1.016
My classmates need training on e-learning.	311	3.69	0.962

## 5.2. INFERENCE STATISTICS (COMPARATIVE FINDINGS)

The differences that occur in the overall score for e-learning readiness according to students' demographic features such as gender, age and department are also examined. Chi-Square test was used to verify statistical significance of differences in mean scores on mentioned variables.

### 5.2.1. Departmental Differences

A Chi-Square analysis has been conducted to see if department in other words discipline makes any difference in the students' perception for e-learning readiness.

**Table 39.** Differences according to students' departments (Chi-Square)

Factor	Value	df	Asymp. Sig. (2-sided)
Institution readiness	501.795	70	.000
Availability of technology readiness	242.099	56	.000
Use of technology readiness	203.196	56	.000
Self confidence readiness	282.320	56	.000
Acceptance readiness	379.049	56	.000
Training readiness	148.232	56	.000
Overall	633.948	70	.000

According to table 39 the difference between departments is statistically significant, and this difference exists in all factors which their "p" is less than 0.05.

Mean scores displayed in Table 40 reveal that the majority of Hacettepe University Faculty of Letters' departments except Archeology, English Language and Literature, Philosophy, Psychology and Translation and Interpretation Departments are ready for e-learning. The highest overall mean scores belong to the departments of History of Art and History (M = 3.7). The highest mean scores (M = 4.1) of training readiness belong to History of Art and Turkish Folklore departments. History of Art has the highest scores (M = 3.9) of acceptance readiness. Turkish Language and Literature, Sociology, History of Art and American Culture and Literature have the highest scores (M = 4.0) of self confidence readiness. History of Art has the highest scores (M = 3.7) of use of technology readiness. Turkish Language and Literature, History and American Culture and Literature have highest scores (M = 4.0) of availability of technology readiness. History has the highest score of (M = 3.4) Institutional Readiness.

Results show that departments of American Culture and Literature, French Language and Literature, History, History of Art, Sociology, Turkish Language and Literature have expected readiness level regarding to students' perspective. On the contrary mentioned departments do not have expected readiness level regarding to instructors' perspective. Additionally both instructors and students think that departments of Archeology, Psychology and Translation and Interpretation are not ready for e-learning.

Departments of German Language and Literature and Information Management are most ready departments for e-learning from instructors' perspective. Departments of History and History of Art are most ready departments for e-learning from students' perspective. Department of Anthropology has the lowest e-learning readiness level from instructors' perspective. Department of Translation and Interpretation has the lowest e-learning readiness level from students' perspective.

**Table 40.** Departmental differences for students' e-learning readiness

Department	Institution Readiness		Availability of technology Readiness		Use of technology Readiness		Self confidence Readiness		Acceptance Readiness		Training Readiness		Overall	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
American Culture and Literature	2.6	1.1	4.0	1.1	3.5	1.3	4.0	1.1	3.6	0.9	3.5	0.8	3.6	1.2
Archeology	2.8	1.3	2.8	1.2	3.1	1.3	3.8	0.9	3.2	0.8	3.9	0.8	3.3	1.1
English Language and Literature	2.5	1.4	3.1	1.2	3.4	1.2	3.6	1.1	2.9	0.9	3.9	0.9	3.2	1.2
English Linguistics	3.3	1.0	3.4	1.2	3.6	1.2	3.9	1.1	3.3	1.0	3.3	1.1	3.5	1.1
French Language and Literature	2.8	1.3	3.1	1.3	3.5	1.2	3.9	0.9	3.7	0.8	3.7	1.0	3.5	1.2
German Language and Literature	3.3	1.3	3.5	1.1	3.0	1.3	3.7	1.1	3.5	0.8	3.6	1.1	3.4	1.2
History	3.4	1.2	4.0	1.2	3.3	1.3	3.8	0.9	3.8	0.8	3.8	1.0	3.7	1.1
History of Art	2.5	0.9	3.6	1.1	3.7	1.1	4.0	0.8	3.9	0.7	4.1	0.5	3.7	1.0
Information Management	3.1	1.2	3.8	1.1	3.4	1.3	3.7	0.9	3.3	1.4	3.4	0.8	3.5	1.2
Philosophy	2.5	1.1	3.3	1.3	3.1	1.0	3.5	0.7	3.1	0.9	3.9	0.9	3.2	1.1
Psychology	2.4	1.2	3.7	1.1	3.1	1.3	3.7	1.1	3.3	0.9	3.4	1.0	3.3	1.2
Sociology	2.5	1.3	3.8	1.1	3.4	1.2	4.0	0.9	3.3	1.1	3.6	1.2	3.5	1.2
Translation and Interpretation	2.2	1.3	3.3	1.3	2.9	1.2	3.5	1.0	3.2	1.1	3.5	0.9	3.1	1.2
Turkish Folklore	3.3	1.1	3.4	1.3	3.2	1.1	3.6	1.0	3.8	0.8	4.1	0.9	3.5	1.1
Turkish Language and Literature	2.6	1.1	4.0	1.1	3.5	1.3	4.0	1.1	3.6	0.9	3.5	0.8	3.6	1.2



### 5.2.2. Gender Differences

**Table 41.** Differences according to students' gender (Chi-Square)

Factor	Value	df	Asymp. Sig. (2-sided)
Institutional readiness	17.462	5	.004
Availability of technology readiness	26.210	4	.000
Use of technology readiness	10.535	4	.032
Self confidence readiness	30.752	4	.000
Acceptance readiness	90.768	4	.000
Training readiness	9.929	4	.042
Overall	25.583	5	.000

According to table 41 the difference between readiness scores according to gender is statistically significant for institutional, availability of technology, self confidence, use of technology training and acceptance readiness (their "p" is less than 0.05).

**Table 42.** Differences according to students' gender

Factors	Female		Male	
	M	SD	M	SD
Institutional readiness	2.77	1.321	2.76	1.375
Availability of technology readiness	3.42	1.330	3.64	1.189
Use of technology readiness	3.33	1.295	3.34	1.270
Self confidence readiness	3.83	0.981	3.72	1.108
Acceptance readiness	3.61	1.005	3.29	1.026
Training readiness	3.75	1.007	3.65	1.002
Overall	3.47	1.213	3.41	1.220

As shown in Table 42, the female students' overall readiness (M = 3.47) is higher than male students (M = 3.41). These results indicate that the female students' institutional, self confidence, acceptance and training readiness are higher than male. On contrary male students' availability of technology and use of technology readiness levels are higher.

Findings indicate that female students' overall readiness (M = 3.47) is higher than female instructors' overall readiness (M = 3.05). Male students' overall readiness (M = 3.41) is also higher than male instructors' overall readiness (M = 3.21).

### 5.2.3. Age Differences

**Table 43.** Differences according to students' age (Chi-Square)

Factor	Value	df	Asymp. Sig. (2-sided)
Institution readiness	154.654	15	.000
Availability of technology readiness	85.806	12	.000
Use of technology readiness	66.004	12	.000
Self confidence readiness	124.937	12	.000
Acceptance readiness	52.365	12	.000
Training readiness	23.516	12	.024
Overall	129.236	15	.000

According to Table 43 the difference between age groups is statistically significant, and this difference exists in all factors (their “p” is less than 0.05).

As shown in Table 44, students between 21-23 years old have the highest overall readiness (M = 3.48) among other groups. Students between 21-23 years old also have the highest use of technology readiness (M = 3.36), acceptance readiness (M = 3.52) and self confidence readiness (M = 3.86) among other groups. The age group students 30 or more than 30 years old have the lowest overall readiness (M = 3.12) among other groups. Findings show that age is an influencing factor for the perceived e-learning readiness which younger students are more ready than their older counterparts for e-learning.

Consequently findings indicate that age is an influencing factor for both students and instructors. Thus younger students and instructors are more ready to start and support e-learning.

**Table 44.** Differences according to students' age

Age	Institution readiness		Availability of technology readiness		Use of technology readiness		Self confidence readiness		Acceptance readiness		Training readiness		Overall	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Between 21-23 years old	2.85	1.368	3.45	1.350	3.36	1.300	3.86	1.018	3.52	1.041	3.68	1.027	3.48	1.232
Between 24-26 years old	2.47	1.186	3.56	1.110	3.33	1.219	3.67	0.998	3.48	0.928	3.88	0.946	3.39	1.152
Between 27-29 years old	2.33	1.373	4.03	0.941	3.12	1.283	3.40	1.083	3.31	0.975	3.72	0.752	3.28	1.211
30 or more than 30 years old	3.80	0.997	3.83	1.117	2.38	1.298	3.05	1.080	3.23	1.457	3.13	0.834	3.12	1.279

## CHAPTER 6

### CONCLUSIONS and RECOMMENDATIONS

In this concluding Chapter, the findings of this study and explicit answers to the research questions which formed the basis for this thesis are presented. Proof of research hypotheses are discussed. The conclusions drawn from the research findings are included. Finally, based on research findings recommendations and suggestions are presented.

The main purpose of this research is to discover whether Faculty of Letters of Hacettepe University is ready for e-learning. Survey method and questionnaire are used for data collection. 146 instructors and 311 senior students participated in the research. Based on previous researches like Akaslan and Law (2011a), Akaslan and Law (2011b) and Soydal, Alır and Ünal (2012), factors which influence on the e-learning readiness were selected as: availability of technology (only for students, because the nature of e-learning requires a distance connection generally from the residence of the student); use of technology; motivation and acceptance; self confidence and training, as well as institution readiness.

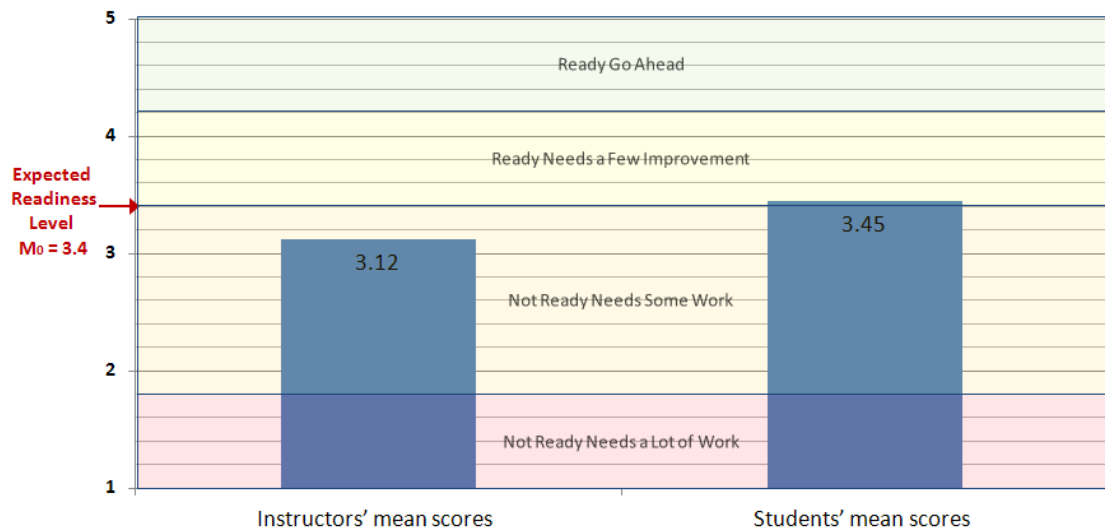
#### 6.1. FINDINGS UNDER RESEARCH QUESTIONS and PROOF of RESEARCH HYPOTHESES

The main hypothesis of this study “Faculty of Letters of Hacettepe University is not ready to adapt to e-learning” is proved partially.

Mean scores for overall readiness from instructors’ perspective is found to be less than the expected level of readiness ( $M = 3.12 < M_o = 3.40$ ). On the contrary, Mean scores for overall readiness from students’ perspective is found to be slightly higher than the expected level of readiness ( $M = 3.45 > M_o = 3.4$ ).

Although there are differences among the scores for sub factors we can reach to a conclusion that students’ readiness level comparatively higher than

instructors. However only slightly higher than expected level and generally improvement is necessary. We can reach a conclusion that Faculty of Letters partially ready for e-learning (see Figure 3).

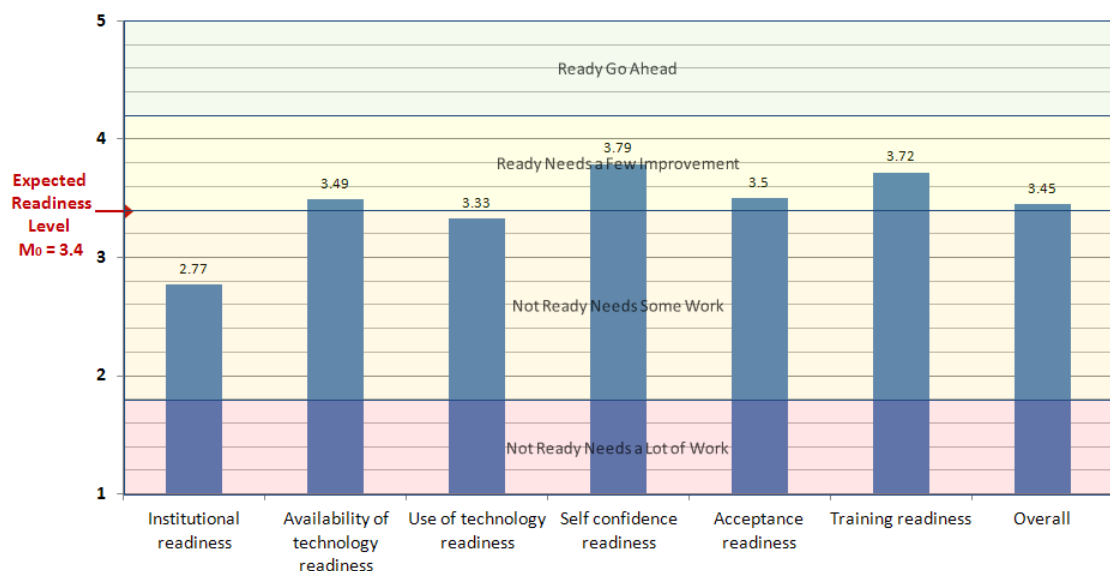


**Figure 3.** Overall readiness of instructors and students

In order to get a better idea about e-learning readiness of Faculty of Letters we need to elaborate further on findings regarding sub factors and sub hypothesis.

“To what extend are students ready to adapt to e-learning” is our second research question. Based on findings, it can be interpreted that students of Hacettepe University Faculty of Letters are overall ready for e-learning. Mean scores of acceptance, self confidence, availability of technology and training readiness are over the expected level. This proves that students have positive attitudes towards e-learning. On the other side, there is a serious shortage in institutional readiness that asserts students are not satisfied with their departments’ technical facilities. Institutional readiness received the lowest score (2.77) which is far below expected level. This indicates need for improvement. Less than half of the students claim that they have access to computer and Internet whenever they need. Additionally according to the perceptions of the students the mean scores for sufficient hardware and software facilities, speed and stability of Internet and access to Internet and

computers in the departments are lower than the expected readiness level ( $M_o = 3.4$ ). Mean score for use of technology factor ( $M = 3.33$ ), is slightly lower than the expected readiness level ( $M_o = 3.40$ ). This indicates that students' technology skills need to be improved. Findings show that students' mean scores for six items which are related to use of Internet, e-mail, office software, social networks, instant messaging and mobile technologies are higher than the expected readiness level ( $M_o = 3.4$ ). It means regarding these sub factors students are ready for e-learning. On the other hand mean scores of the items related to use of learning management systems (e.g. Blackboard, Moodle), specific softwares, Web 2.0 tools and online forums were less than expected readiness level ( $M_o = 3.4$ ). This indicates that regarding these sub factors students are not ready for e-learning and improvement is necessary. With an exception for institutional readiness and use of technology readiness, findings disproved our hypothesis "Students are not ready to adapt to e-learning". In other words they are partially ready for e-learning and improvement is necessary regarding the use of certain tools and techniques (see Figure 4).



**Figure 4.** Students' mean scores for each factor

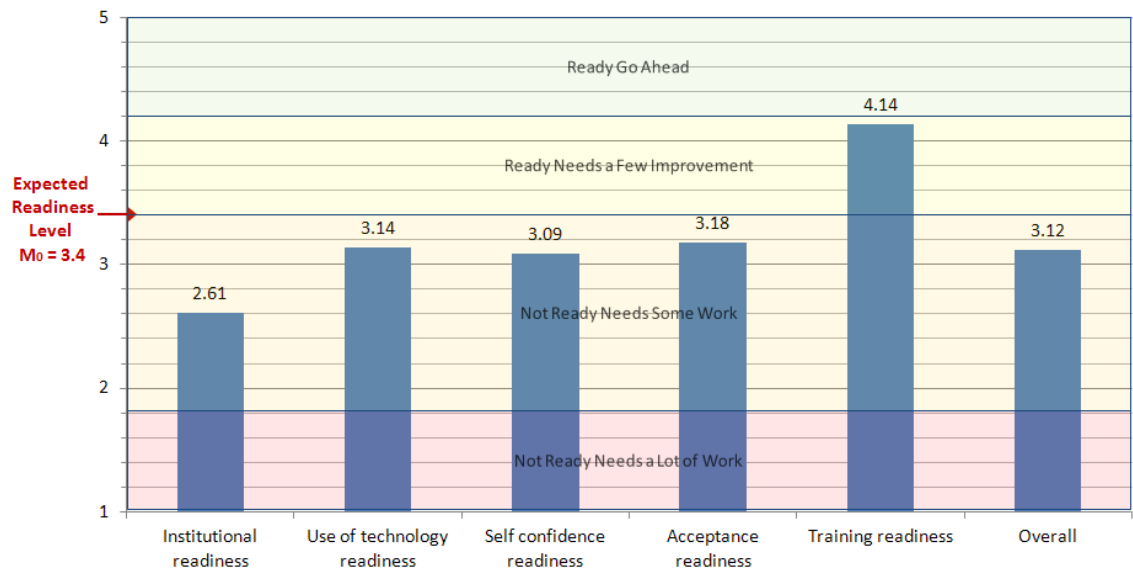
"To what extend are instructors ready to adapt to e-learning" is our third research question. Based on findings, it can be interpreted that instructors of Hacettepe University Faculty of Letters is overall not ready for e-learning.

Factors for institutional, acceptance, self confidence and use of technology readiness indicate the mean scores bellow the expected level which prove there is a shortage and insufficient readiness among instructors for e-learning programs. In addition, mean score for institutional readiness indicates the lowest score among other factors. Findings show that mean scores for instructors' perceptions for institutional readiness are not only lower than the expected readiness level ( $M_o = 3.4$ ) but also lower than 2.6. It means, instructors think hardware and software facilities, speed and stability of Internet, support from the top-level administration, readiness of departments are far from being satisfactory. Majority (about 65%) of instructors think that there are problems to be solved before e-learning is implemented. These indicate that instructors believe their faculty and departments suffer from inadequate infrastructure and must be strengthened in order to facilitate effective adoption of e-learning. The mean score for use of technology ( $M = 3.14$ ) is although not too low still bellow the expected level. Mean scores of items for using Internet as an information source, using e-mail to communicate and using office software are not only higher than the expected readiness level ( $M_o = 3.4$ ) but also higher than 4.2 which means, the readiness for these sub factors are highly sufficient for e-learning. However mean scores of two items for using Web 2.0 tools and using learning management tools are less than 2.6 which indicates these sub factors need improvement. Findings show that most of the instructors use internet often to communicate and find new information however many of them do not use Web 2.0 facilities and learning management systems which are critical and necessary for e-learning. Additionally mean scores of using online forums, mobile technologies, specific software and file hosting services are lower than expected score and these abilities need to be worked on by instructors and opportunities should be provided them to improve these weak points. The mean score for self confidence ( $M = 3.09$ ) is bellow the expected level. Instructors' mean scores for operating computers; using office software, web browsers, search engines; solving problems associated with computer and using digital file management tools are higher than the expected readiness level ( $M_o = 3.4$ ). Mean score for the ability of using search engines is

4.23 which indicates the highest level of readiness. Mean scores for ability to use learning management systems, to design web pages for e-learning, to moderate online discussions, to write study guides for e-learning, to deal with issues related to e-learning and to have time to prepare learning materials are below 2.6, which requires improvement. The results show that instructors have enough confidence about their ability to use general features and tools of technology. On the other hand they have low level of confidence in subjects which directly related to e-learning materials such as using authoring tools, learning management systems, designing web pages and writing good study guides for e-learning. Additionally they assert that they do not have enough time for e-learning and they are not familiar with legal issues related to e-learning and they feel that they are not ready to integrate e-learning in their teaching. The mean score for use of acceptance ( $M = 3.18$ ) is bellow the expected level. Instructors' responses show that they do not believe at expected level that e-learning enables them to accomplish their teaching more effectively than the traditional classroom-based approach also they think e-learning do not help them to increase their productivity and quality of their teaching. It can be easily interpreted that the instructors have low acceptance towards e-learning. The overall training readiness mean score for instructors is 4.14. It shows instructors training readiness is highly satisfactory. With an exception for training readiness, findings prove our hypothesis "Instructors are not ready to adapt to e-learning" (see Figure 5).

"Are there any differences among the participants regarding their genders, in terms of accepting/rejecting e-learning" is our forth research question. Findings reveal that the male instructors' overall readiness ( $M = 3.21$ ) is higher than female ( $M = 3.05$ ). Male instructors' mean scores for institutional, acceptance and self confidence readiness are higher than female instructors. Both female and male instructors have insufficient abilities to use technology. Both believe a need for training for themselves, their students and other personnel (see Figure 6).

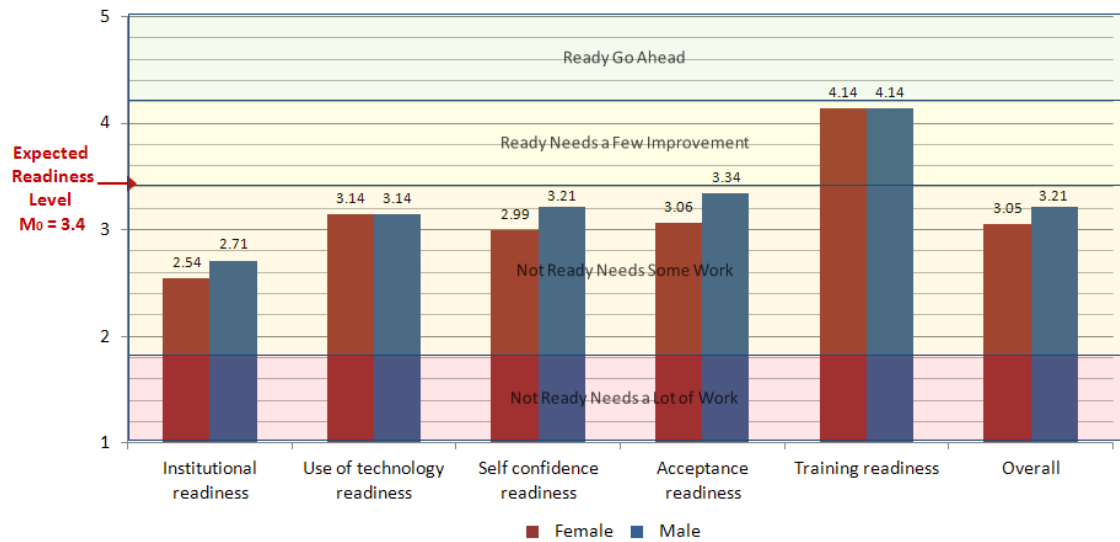




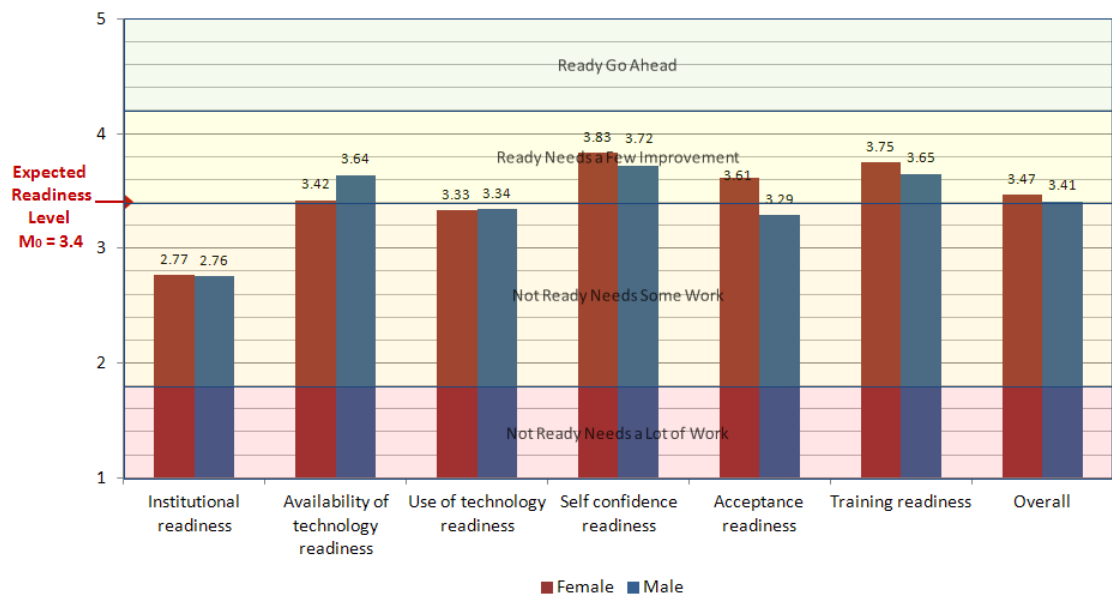
**Figure 5.** Instructors' mean scores for each factor

On the contrary, findings also reveal that female students' overall readiness ( $M = 3.47$ ) is higher than male students ( $M = 3.41$ ). Male students have lower readiness than the female with respect to the institution, self confidence, acceptance and training readiness. On the contrary, male students are more satisfied than female about their residences' technical facilities. In addition both male and female students have lack of abilities in use of specific e-learning technology. Additionally female students' overall readiness ( $M = 3.47$ ) is higher than female instructors' overall readiness ( $M = 3.05$ ) (see Figure 7). Male students' overall readiness ( $M = 3.41$ ) is also higher than male instructors' overall readiness ( $M = 3.21$ ). Findings prove our hypothesis "There are differences on the degree of e-learning readiness regarding gender", however in favour of opposite genders when instructors and students are taken into account.

"Are there any differences among participants regarding their ages, in terms of accepting/rejecting e-learning" is our fifth research question. Findings show that the 21-23 years-old students have the highest overall readiness ( $M = 3.48$ ) among other groups. They also have the highest use of technology readiness ( $M = 3.36$ ), acceptance readiness ( $M = 3.52$ ) and self confidence readiness ( $M = 3.86$ ) among all.



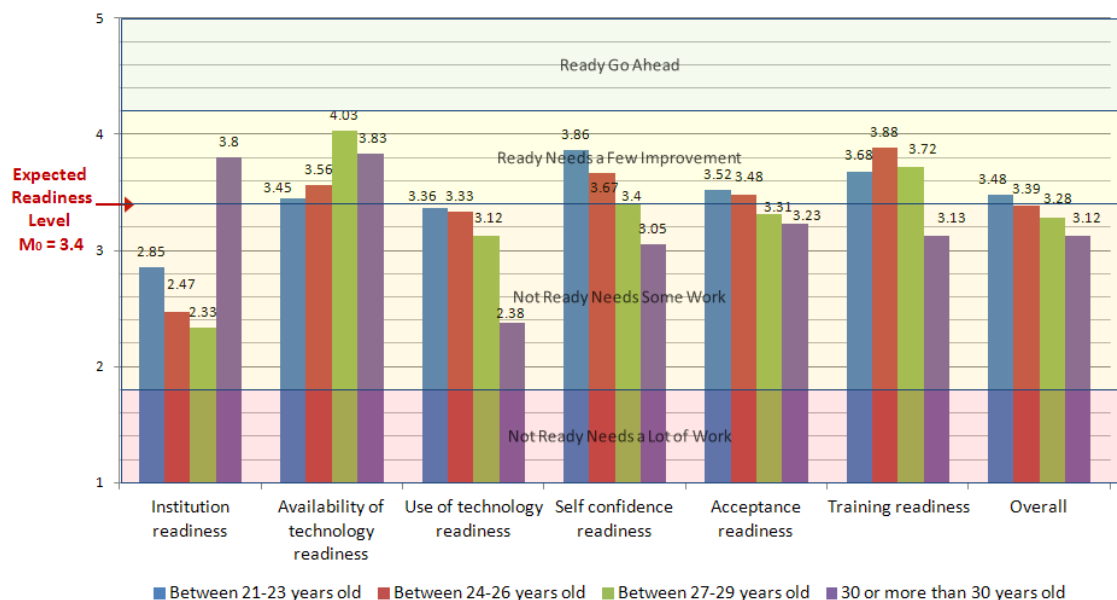
**Figure 6.** Differences according to instructors' gender



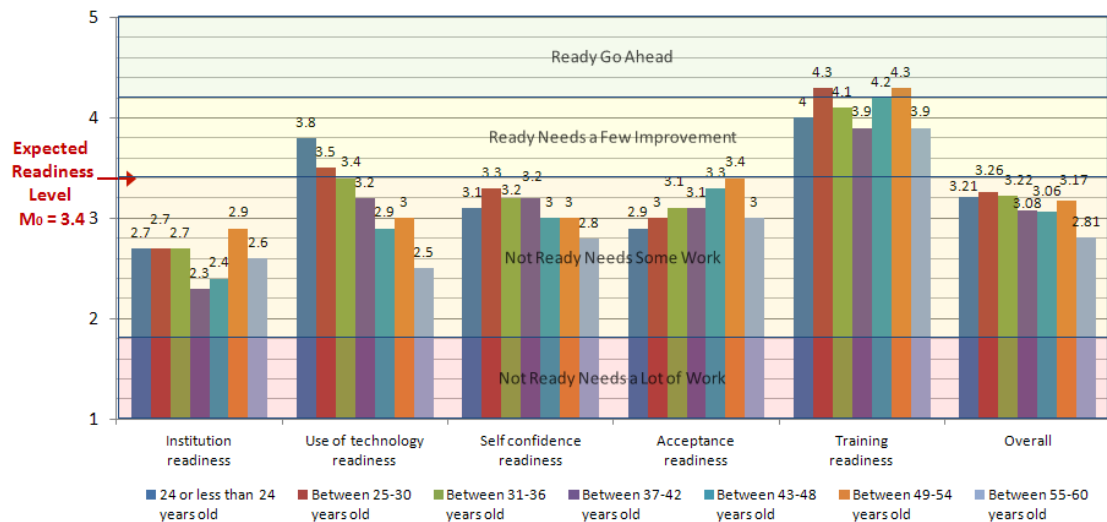
**Figure 7.** Differences according to students' gender

On the contrary, students at 30 or more than 30 years old have the lowest overall readiness (M = 3.12) among other groups. Thus age is an influencing factor for the perceived e-learning readiness which younger students are more ready than their older counterparts for e-learning (see Figure 8).

Findings also indicate that instructors between 25-30 years old ( $M = 3.26$ ) have the highest overall readiness among other groups. They also have the highest training readiness ( $M = 4.3$ ) and acceptance readiness ( $M = 3.3$ ). It shows they are more ready regarding to have training and accept e-learning. On the contrary respondents between 55-60 years old ( $M = 2.81$ ) show the lowest overall readiness among other groups. For use of technology readiness 24 or less than 24 years old group is the best. Because of their age they could be more interested in using technology (see Figure 9). In summary, age is an influencing factor for the perceived e-learning readiness of both instructors and students. 25-30-year-old instructors' group and 21-23-years-old of students' group have more positive views and higher readiness for e-learning than their older counterparts, this can be interpreted as younger participants are more confident and curious for teaching and learning via electronic environment. Findings confirm our hypothesis "There are differences on the degree of e-learning readiness regarding age".



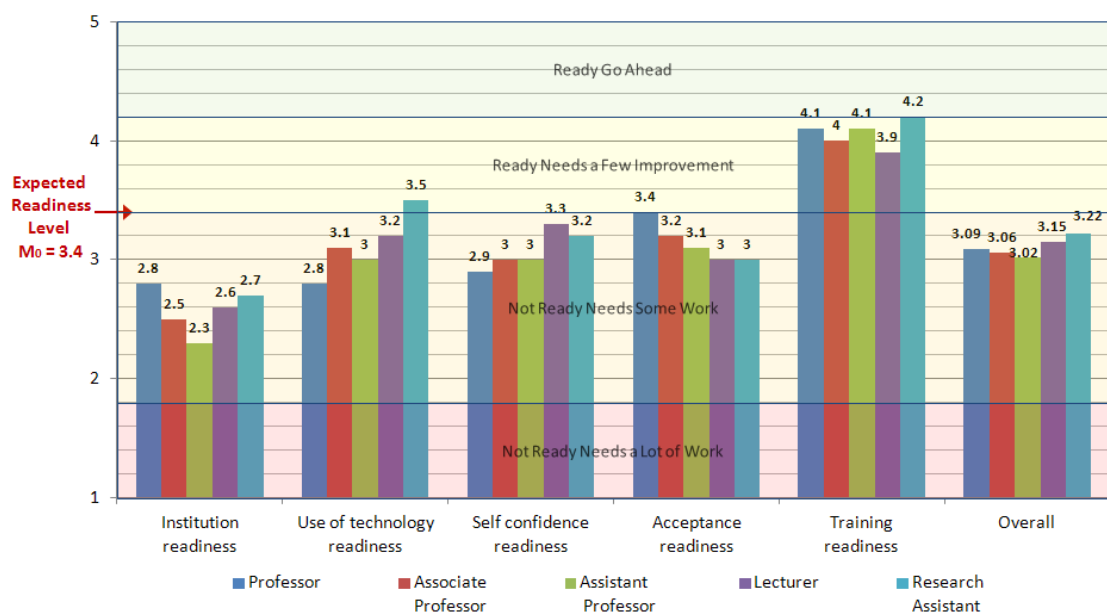
**Figure 8.** Differences according to students' age



**Figure 9.** Differences according to instructors' age

“Are there any differences among the participants regarding their disciplines in terms of accepting/rejecting e-learning” is our sixth research question. According to instructors' responses except Information Management Department and German Language and Literature Department, other departments have lower mean scores than expected score ( $M_o = 3.4$ ). They are not ready for e-learning and improvements needed before implementing e-learning. The highest overall readiness mean scores belong to the Department of Information Management and German Language and Literature ( $M = 3.6$ ). This is because of their familiarity to the electronic environment. It is known that they have some experience regarding to e-courses. As for students' majority of Hacettepe University Faculty of Letters' departments except Archeology, English Language and Literature, Philosophy, Psychology and Translation and Interpretation Departments are ready for e-learning. The highest overall mean scores ( $M = 3.7$ ) belong to the departments of History of Art and History. Department of Anthropology has the lowest e-learning readiness level from instructors' perspective. Department of Translation and Interpretation has the lowest e-learning readiness level from students' perspective. Findings confirm our hypothesis “There are differences on the degree of e-learning readiness regarding discipline”.

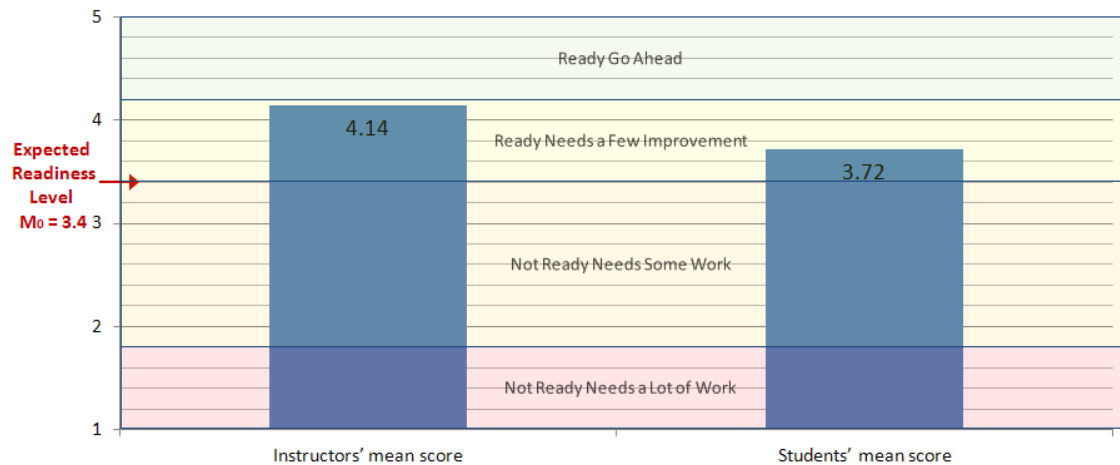
“Are there any differences among the instructors regarding their status in terms of accepting/rejecting e-learning” is our seventh research question. The research assistants with the mean score of 3.22 have the highest readiness score among the others. As findings show their use of technology readiness ( $M = 3.5$ ) and training readiness ( $M = 4.2$ ) are also the highest among other instructors. Probably they are young and more interested in using new technologies. The Professors have the highest score ( $M = 2.8$ ) in their perception for institutional readiness. This could be because they are well aware of institutional facilities than their younger colleagues. Professors have also the highest mean score ( $M = 3.4$ ) for acceptance readiness. As for training scores for all status are very satisfactory. Findings prove our hypothesis “There are differences on the degree of instructors’ e-learning readiness regarding status.” (see Figure 10).



**Figure10.** Differences according to instructors’ status

“Is there any need for training in the implementation of e-learning” is our eighth research question. From findings it can be asserted that although instructors’ overall training readiness ( $M = 4.14$ ) is higher than students’ overall training readiness ( $M = 3.72$ ), both have satisfactory training readiness level. It means there is a good acceptance for training from instructors and senior students and

they believe that they need to be trained before launching e-learning applications. They are also aware of their insufficient readiness for starting any kind of e-learning. Findings prove our hypothesis “There is a need for training in the implementation of e-learning.” (see Figure 11).



**Figure 11.** Instructors' and students' mean score for training readiness

It must also be considered that the standard deviation value in most of the results are high, which indicates a difference among responses.

## 6.2. CONCLUTIONS and RECOMMENDATIONS

Based on findings from instructors

- Instructors are mostly concerned with the inadequacy of hardware and software facilities provided, unreliable network facilities (speed and stability of internet), insufficiency of administrative support. They consider these supports as key factors influencing their decision whether or not to participate in the implementation of e-learning. Thus Faculty should provide appropriate technical facilities.
- Faculty administration should be aware that instructors feel that they are not ready to integrate e-learning in their teaching. They also assert that they do not have enough time for e-learning. They are not familiar with legal issues related to e-learning. In addition instructors

have low level of confidence in subjects which directly related to e-learning systems such as: using authoring tools, learning management systems, designing web pages and writing study guides for e-learning. Thus they should be provided appropriate training programs before taking a step further in e-learning implementations.

- The instructors hold negative attitudes towards some aspect of e-learning. For example they do not believe that e-learning enables them to accomplish their teaching more effectively than the traditional classroom-based approach or increase their productivity and quality of their teaching. They should be provided some proper environment and training to introduce the advantages of e-learning.

Based on findings from students:

- In spite of the overall readiness from students' perspective, Hacettepe University Faculty of Letters' technical facilities are found insufficient. Students believe there is a shortage of infrastructure in the Faculty. They are not satisfied with hardware and software facilities of their departments and neither the access, speed and stability of internet. Thus Faculty should provide appropriate technical facilities before launching any e-learning initiative.
- Students' technical abilities regarding the use of internet, e-mail, office software, social networks, instant messaging and mobile technologies are satisfactory. However, their readiness for using learning management systems (e.g. Blackboard, Moodle), specific softwares, Web 2.0 tools and online forums are inadequate. These could be because students did not need to use these tools before. Thus they should be provided training.
- Students feel they are ready and have time for starting e-learning, Also they have acceptable level of confidence readiness. Students believe that e-learning can enhance the quality of education, increase their productivity and provides benefits for education. The only thing they are not sure is that "e-learning is more effective than

the traditional classroom” and enables learners and instructor to communicate and interact better with one another”. Therefore it would be recommended to give a chance to experience e-courses to understand the advantages of e-learning.

- More than 60% of students believe that not only themselves but also their instructors and classmates need training for e-learning. It means they are aware of this fact that before starting e-learning they and their instructors need to have training. Thus Faculty administrators should provide appropriate training program before taking a step further in e-learning implementations.

These findings generally support and agree with the studies of Kaur and Abas (2004), So and Swatman (2006), Lopes (2007), Islam, E. H. A. (2010) who assert that there are a shortage of infrastructure in faculties, also there are insufficient acceptance, confidence and inadequate ability for using technology, so there is a need of some attempt in order to have advance e-learning readiness of students and instructors. On the contrary our results oppose with Akaslan and Law (2011b) findings, probably because their research field was electrical engineering, as our research indicates there could be severe differences among disciplines.

Results of our research are quite similar with the previous study by Soydal, Alır and Ünal (2012). They assert, Faculty of Letters of Hacettepe University academic staff are not ready for the e-learning generally. The same result is proved in this research. Additionally Soydal, Alır and Ünal (2012) pointed out that staff is not ready to deal with e-learning materials and they think they need training, as well as our research conclusions. Their research indicated that age and status differences affect the opinions of the respondents for e-learning readiness. Same conclusion is reached in this research. Their findings show gender differences is not significant in terms of e-learning readiness however our findings indicate gender differences. Additionally they interpreted as younger academic staff is more confident in using technology. Same is proved by this research.



In summary, there are many factors we need to consider before integrating e-learning into the respective Faculty of Letters of Hacettepe University. First, according to both senior students' and instructors' responses training is identified as a key factor that helped enhance and maintain familiarity with the use of new technologies, including the implementation of e-learning. This means appropriate training program should be provided before taking a step further in e-learning implementations. Also departments are suffering from the serious shortage of technical facilities, therefore proper strategies should be developed to provide and maintain necessary facilities. Faculty administration should provide support before, during, and after the implementation of e-learning. Additionally university library should play an important role in supporting e-learning by providing e-sources, e-materials and e-services for both students and instructors.

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## **APPENDICES**

### **Appendix 1: English Instructor's Questionnaire**

Dear Instructor,

This questionnaire is used as part of my Master's degree research study to find the e-learning readiness of Hacettepe University Faculty of Letters conducted in the Information Management Department. E-learning is defined as learning using the Internet, Intranet or a computer network that transcend time and location constraints.

Filling out the survey takes approximately 10 minutes and it is needless to say that you would help me a lot. In addition you're contributing to the educational community.

Thanks in advance for your attention.

Mandana Mir Moftakhari

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**General Information****1. Your department**

- American Culture and Literature
- Anthropology
- Archeology
- English Language and Literature
- English Linguistics
- French Language and Literature
- German Language and Literature
- History
- History of Art
- Information and Document Management
- Philosophy
- Psychology
- Sociology
- Translation and Interpretation
- Turkish Folklore
- Turkish Language and Literature

**2. Gender**

- Female
- Male

**3. Your age**

- 24 and Under
- 25-30
- 31-36
- 37-42
- 43-48
- 49-54
- 55-60
- 61-66
- 67 and more

**4. Your status**

- Professor
- Associate Professor
- Assistant Professor
- Lecturer
- Research Assistant

**E-learning Readiness**

**II. Institution Readiness for E-learning**

- 5. Do you have e-learning in your department? Yes No
- 6. I have access to the computer to use individually at my office. Yes No
- 7. I have access to internet to use individually at my office. Yes No

<b>Institutional Readiness</b>						
8. To what extent do you agree with the following statements?	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	I do not know
The hardware facilities of my department are enough for e-learning.						
The software facilities of my department are enough for e-learning.						
The speed of the internet access at my department is satisfactory.						
The stability of the internet access at my department is satisfactory.						
The top-level administration of my department supports the use of e-learning in my department.						
The personnel are keen of using e-learning in my department.						
My department is ready for e-learning.						
There are some problems that need to be solved before e-learning program can be implemented at my department.						

If you think there are some problems that need to be solved before e-learning program can be implemented at your department please mention them:

.....

**II. Individual Readiness for E-learning**

- 9. I have individual computer (laptop, desktop computers, tablet, etc). Yes No
- 10. I have internet connection at my home. Yes No
- 11. I have internet- connected smart phone . Yes No

<b>Use of Technology Readiness</b>					
12. To what extent do you use these technologies?	Almost always	Sometimes	Occasionally	Rarely	Never
I use internet as information source.					
I use e-mail as the main communication tool with my students and colleagues.					
I use office software (e.g. Microsoft Office PowerPoint) for content delivery and demonstration.					
I use social network sites (e.g. Facebook, Twitter).					
I use specific software (e.g. SPSS).					
I use instant Messaging (e.g. MSN, Skype).					
I use Web 2.0 tools (e.g. Blog, wiki) to share information.					
I use file hosting services (e.g. Google Documents, Dropbox).					
I use learning management systems (e.g. Blackboard, Moodle).					
I use online forum and chat to communicate with my colleagues.					
I use mobile technologies (Smartphone) to connect internet.					

<b>Self Confidence Readiness</b>					
<b>13. To what extent do you agree with the following statements?</b>	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
I have information about what e-learning is.					
I have the skills to operate a computer.					
I am able to use office software for content delivery and demonstration (e.g. Microsoft Office Power Point, Word, Excel).					
I am able to use web browsers (Internet Explorer, Google Chrome).					
I am able to use search engines (Google, MSN Search).					
I can troubleshoot most problems associated with using a computer.					
I can use digital file management tools (e.g. deleting or renaming a file on your computer)					
I have knowledge and ability to prepare e-learning materials					
I can use authoring tools to create learning materials (e.g. Movie Maker, Microsoft Publisher)					
I am able to use learning management systems(e.g. Blackboard, Moodle)					
I am able to design Web pages for e-learning					
I am able to moderate online discussions					
I am able to write good study guides for e-learning					
I am able to deal with legal issues related to e-learning (copyrights, privacy)					
I have enough time to prepare e-learning materials					
I feel that I am ready to integrate e-learning in my teaching.					

<b>Acceptance Readiness</b>					
<b>14. To what extent do you agree with the following statements?</b>	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
I am keen to prepare e-learning materials					
I believe that e-learning can enhance the quality of the <u>theoretical</u> part of my subject.					
I believe that e-learning can enhance the quality of the <u>practical</u> part of my subject					
I believe my students will like e-learning.					
I believe that my students find it easy to use e-learning.					
I believe that e-learning can improve the quality of my teaching					
I believe that using e-learning can increase my productivity.					
I believe that e-learning enables me to accomplish my teaching more effectively than the traditional classroom-based approach.					
I believe that e-learning enables learners and instructor to communicate and interact better with one another.					
I believe that implementation of e-learning will be easy.					
I support implementation of e-learning in my department.					

<b>Training Readiness</b>  <b>15. To what extent do you agree with the following statements?</b>	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
I need training on e-learning.					
My students need training on e-learning.					
The personnel of your department need training					

If you have any idea about the subject please share it with us:

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## **Appendix 2: English Students's Questionnaire**

Dear Student,

This questionnaire is used as part of my Master's degree research study to find the e-learning readiness of Hacettepe University Faculty of Letters conducted in the Information Management Department. E-learning is defined as learning using the Internet, Intranet or a computer network that transcend time and location constraints.

Filling out the survey takes approximately 10 minutes and it is needless to say that you would help me a lot. In addition you're contributing to the educational community.

Thanks in advance for your attention.

Mandana Mir Moftakhari

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## General Information

### 1. Your department

- American Culture and Literature
- Archeology
- English Language and Literature
- English Linguistics
- French Language and Literature
- German Language and Literature
- History
- History of Art
- Information and Document Management
- Philosophy
- Psychology
- Sociology
- Translation and Interpretation
- Turkish Folklore
- Turkish Language and Literature

### 2. Gender

- Female
- Male

### 3. Your age

- 18-20
- 21-23
- 24-26
- 27-29
- 30 and more

**E-learning Readiness**

**I. Institutional Readiness for E-learning**

<b>Institutional Readiness</b>  5. To what extent do you agree with the following statements?	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	I do not know
The hardware facilities of my department are enough for students.						
The software facilities of my department are enough for students.						
The speed of the internet access at my department is satisfactory.						
The stability of the internet access at my department is satisfactory.						
I have access to computer whenever I need at my department.						
I can connect internet whenever I need at my department.						

**II. Individual Readiness for E-learning**

6. I have individual computer (laptop, desktop computers, tablet, etc). Yes No

7. I have internet- connected Smartphone. Yes No

<b>Availability of Technology</b>  8. To what extent do you agree that technology facilities which are mentioned down enough at your resident place (home, dorm, etc).	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
The hardware facilities are enough.					
The software facilities are enough.					
The speed of the internet access is satisfactory.					
The stability of the internet access is satisfactory.					
I have access to computer whenever I need.					
I can connect internet whenever I need.					

<b>Use of technology</b>					
9. To what extent do you use these technologies?	Almost always	Sometimes	Occasionally	Rarely	Never
I use internet as information source					
I use e-mail as the main communication tool with my teachers and classmates.					
I use office software (e.g. Microsoft Office PowerPoint).					
I use social network sites (e.g. Facebook, Twitter).					
I use specific software (e.g. SPSS).					
I use instant Messaging (e.g. MSN, Skype).					
I use Web 2.0 tools (e.g. Blog, wiki) to share information.					
I use file hosting services (e.g. Google Documents, Dropbox).					
I use learning management systems (e.g. Blackboard, Moodle).					
I use online forum and chat to communicate with my colleagues.					
I use mobile technologies (Smartphone) to connect internet.					

<b>Self confidence</b>					
10. To what extent do you agree with the following statements?	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
I have information about what e-learning is.					
I have the skills to operate a computer.					
I am able to use office software for content delivery and demonstration (e.g. Microsoft Office Power Point ,Word, Excel).					
I am able to use web browsers (Internet Explorer, Google Chrome).					
I am able to use search engines (Google, MSN Search).					
I can troubleshoot most problems associated with using a computer.					
I can use digital file management tools (e.g. deleting or renaming a file on your computer).					
I am able to do my homework by using electronic technology facilities.					
I have enough time to prepare my homework by using electronic technology facilities.					
I am able to use learning management systems (e.g. Blackboard, Moodle).					
I believe that e-learning is easy to use.					
I feel that I am ready for e-learning.					

<b>Acceptance</b>  11. To what extent do you agree with the following statements?	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
I am keen to start e-learning.					
I believe that e-learning can enhance the quality of education.					
I believe that using e-learning can increase my productivity.					
I believe that e-learning is more effectively than the traditional classroom-based approach.					
I believe that e-learning enables learners and instructor to communicate and interact better with one another.					
I believe that e-learning have benefits for education.					
I support implementation of e-learning in my department.					

<b>Training</b>  12. To what extent do you agree with the following statements?	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
I need training on e-learning.					
My teachers need training on e-learning.					
My classmates need training on e-learning.					

If you have any idea about the subject please share it with us:

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## Appendix 3: Turkish Students's Questionnaire

### E-Öğrenmeye Hazır Olma Durumu

#### Öğrenci Anketi

Bu anket Edebiyat Fakültesinde e-öğrenmeye hazır olma durumunu belirlemek amacıyla Bilgi ve Belge Yönetimi Bölümü'nde yürütülen bir yüksek lisans tez çalışması kapsamında hazırlanmıştır. E-öğrenme, öğretenle öğrenenin İnternet, sosyal ağlar ve uzaktan öğretim yazılımlarını kullanarak bir derste yerine getirilmesi gereken tüm öğretim faaliyetlerini uzaktan sürdürmeleri olarak tanımlanabilir.

Soruları yanıtlamanız yaklaşık 10 dakikanızı alacak ve çalışmanın başarıyla tamamlanmasına büyük katkı sağlayacaktır. Katılımınız için teşekkür ederiz.

Mandana Mir Moftakhari

mir\_moftakhari@yahoo.com

#### Demografik Bilgiler

##### 1. Bölümünüz

- Alman Dili ve Edebiyatı
- Amerikan Kültürü ve Edebiyatı
- Arkeoloji
- Bilgi ve Belge Yönetimi
- Felsefe
- Fransız Dili ve Edebiyatı
- İngiliz Dilbilimi
- İngiliz Dili ve Edebiyatı
- Mütercim-Tercümanlık
- Psikoloji
- Sanat Tarihi
- Sosyoloji
- Tarih
- Türk Dili ve Edebiyatı
- Türk Halk Bilimi

##### 2. Cinsiyetiniz

- Kadın
- Erkek

##### 3. Yaşınız

- 18-20
- 21-23
- 24-26
- 27-29
- 30 yaş ve üstü

## E-öğrenmeye Hazır Olma Durumu

E-öğrenmeye hazır olma durumu kurumsal ve bireysel hazırlık açılarından ele alınacaktır.

### I. Kurumsal Açıdan Hazır Olma Durumu

Kurumsal Hazır Olma Durumu	Tamamen katılıyorum	Katılıyorum	Kararsızım	Katılmıyorum	Hiç katılmıyorum	Hiç fikrim yok
<b>5. Aşağıda sıralanan konularda bölümünüzü değerlendiriniz</b>						
Bölümdeki bilgisayar donanım olanakları öğrenciler için yeterlidir						
Bölümdeki bilgisayar yazılım olanakları öğrenciler için yeterlidir						
Bölümdeki İnternet bağlantı hızı yeterlidir						
Bölümdeki İnternet bağlantı kesiksizdir						
Fakültedeki bilgisayarları ihtiyaç duyduğum an kullanabiliyorum						
Fakültede ihtiyaç duyduğum an İnternete erişebiliyorum						

### II. Bireysel Açıdan Hazır Olma Durumu

6. Kişisel bilgisayarım var (masa üstü, diz üstü, tablet, vb.) Evet Hayır
7. İnternet bağlantısı olan akıllı telefonum var Evet Hayır

Teknoloji Olanakları	Tamamen katılıyorum	Katılıyorum	Kararsızım	Katılmıyorum	Hiç katılmıyorum
<b>8. Aşağıda sıralanan konularda yaşadığınız yeri (ev, yurt, vb) değerlendiriniz</b>					
Bilgisayar donanım olanakları yeterlidir					
Bilgisayar yazılım olanakları yeterlidir					
İnternet bağlantı hızı yeterlidir					
İnternet bağlantı kesiksizdir					
Bilgisayarı ihtiyaç duyduğum an kullanabiliyorum					
Yaşadığım yerde İnternete ihtiyaç duyduğum an erişebiliyorum					

<b>Teknoloji Kullanımı</b>					
<b>9. Aşağıda listelenenler için kullanım sıklığınızı belirtiniz</b>	Hemen her zaman	Sık sık	Bazen	Nadiren	Asla/Hiç
İnterneti bilgi kaynağı olarak kullanım					
E-postayı sınıf arkadaşlarımla ve hocalarımla iletişim aracı olarak kullanım					
Ofis yazılımlarını (PowerPoint, Word, Excel gibi) kullanım					
Sosyal ağ sitelerini (Facebook, Twitter gibi) kullanım					
Alanımla ilgili özel yazılımları (SPSS gibi) kullanım					
Anında mesajlaşma araçlarını (MSN, Skype gibi) kullanım					
Web 2.0 araçlarını (Blog ve wiki gibi) bilgi paylaşımı amacıyla kullanım					
Belge ve dosya paylaşım araçlarını/yazılımlarını (Google Documents ve Dropbox gibi) kullanım					
E-öğrenme platformlarını (Blackboard ve Moodle gibi) kullanım					
Online forumları, tartışma listelerini kullanım					
Mobil teknolojileri (akıllı telefonlar) İnternete erişmek için kullanım					

<b>Kendine Güven</b>					
<b>10. Aşağıda sıralanan konularda kendinizi değerlendiriniz</b>	Tamamen katılıyorum	Katılıyorum	Kararsızım	Katılmıyorum	Hiç katılmıyorum
E-öğrenme konusunda bilgi sahibiyim					
Bilgisayarı kendimden emin şekilde kullanım					
Ofis programlarını (Power Point, Word, Excel gibi) kendimden emin şekilde kullanım					
İnternet web tarayıcıları (İnternet Explorer, Google Chrome gibi) kendimden emin şekilde kullanım					
Arama motorlarını (Google, MSN Search gibi) kendimden emin şekilde kullanım					
Bilgisayar kullanımı sırasında karşılaştığım sorunları çözebilirim					
Dijital dosya yönetim araçlarını (bilgisayardaki bir dosyayı silmek veya yeni bir isim vermek gibi) kendimden emin şekilde kullanım					
Ödevlerimi elektronik ortamda hazırlayacak bilgi ve becerilere sahibim					
Ödevlerimi elektronik ortamda hazırlayacak zamanım var					
E-öğrenme platformlarını kendimden emin şekilde kullanabilirim (Blackboard, Moodle gibi)					
E-öğrenmenin kolay olacağına inanıyorum					
Kendimi e-öğrenmeye hazır hissediyorum					



<b>İsteklilik ve Kabullenme</b>					
<b>11. Aşağıda sıralanan konularda görüşlerinizi belirtiniz</b>	Tamamen katılıyorum	Katılıyorum	Kararsızım	Katılmıyorum	Hiç katılmıyorum
E-öğrenmeye başlamak için istekliyim					
E-öğrenmeye eğitimimin kalitesini yükselteceğine inanıyorum					
E-öğrenmenin üretkenliğimi artıracığına inanıyorum					
E-öğrenmenin geleneksel sınıf eğitiminden daha etkin olacağına inanıyorum					
E-öğrenme ile öğrencilerin hocalarıyla daha etkin iletişim kuracağına inanıyorum					
E-öğrenmenin eğitim için faydalı olacağına inanıyorum					
E-öğrenmenin Bölümümde başlamasını destekliyorum					

<b>12. Eğitim Gereksinimi</b>					
<b>Aşağıda sıralanan konularda görüşlerinizi belirtiniz</b>	Tamamen katılıyorum	Katılıyorum	Kararsızım	Katılmıyorum	Hiç katılmıyorum
E-öğrenme konusunda eğitime gereksinimim var					
Hocalarımla e-öğrenme konusunda eğitime gereksinimleri var					
Sınıf arkadaşlarımla e-öğrenme konusunda eğitime gereksinimleri var					

Konuyla ilgili belirtmek istediğiniz başka hususlar varsa burada belirtiniz:

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## Appendix 4: Turkish Instructor's Questionnaire

### E-Öğrenmeye Hazır Olma Durumu

#### Öğretim Elemanları Anketi

Bu anket Edebiyat Fakültesinde e-öğrenmeye hazır olma durumunu belirlemek amacıyla Bilgi ve Belge Yönetimi Bölümü'nde yürütülen bir yüksek lisans tez çalışması kapsamında hazırlanmıştır. E-öğrenme, öğretenle öğrenenin İnternet, sosyal ağlar ve uzaktan öğretim yazılımlarını kullanarak bir derste yerine getirilmesi gereken tüm öğretim faaliyetlerini uzaktan sürdürmeleri olarak tanımlanabilir.

Soruları yanıtlamanız yaklaşık 10 dakikanızı alacak ve çalışmanın başarıyla tamamlanmasına büyük katkı sağlayacaktır. Katılımınız için teşekkür ederiz.

Mandana Mir Moftakhari

mir\_moftakhari@yahoo.com

#### Demografik Bilgiler

##### 1. Bölümünüz

- Alman Dili ve Edebiyatı
- Amerikan Kültürü ve Edebiyatı
- Antropoloji
- Arkeoloji
- Bilgi ve Belge Yönetimi
- Felsefe
- Fransız Dili ve Edebiyatı
- İngiliz Dilbilimi
- İngiliz Dili ve Edebiyatı
- Mütercim-Tercümanlık
- Psikoloji
- Sanat Tarihi
- Sosyoloji
- Tarih
- Türk Dili ve Edebiyatı
- Türk Halk Bilimi

##### 2. Cinsiyetiniz

- Kadın
- Erkek

##### 3. Yaşınız

- 24 yaş ve altı
- 25-30
- 31-36
- 37-42
- 43-48
- 49-54
- 55-60

- 61-66
- 67 yaş ve üstü

#### 4. Ünvanınız

- Profesör
- Doçent
- Yardımcı Doçent
- Öğretim Görevlisi
- Araştırma Görevlisi

### E-öğrenmeye Hazır Olma Durumu

E-öğrenmeye hazır olma durumu kurumsal ve bireysel hazırlık açılarından ele alınacaktır.

#### II. Kurumsal Açıdan Hazır Olma Durumu

- |                                                  |      |       |
|--------------------------------------------------|------|-------|
| 5. Bölümümüzde e-öğrenme uygulaması var          | Evet | Hayır |
| 6. Ofisimde kişisel kullanım için bilgisayar var | Evet | Hayır |
| 7. Ofisimde İnternet bağlantısı var              | Evet | Hayır |

Kurumsal Hazır Olma Durumu	Tamamen katılıyorum	Katılıyorum	Kararsızım	Katılmıyorum	Hiç katılmıyorum	Hiç fikrim yok
Bölümdeki bilgisayar donanım olanakları e-öğrenme için yeterlidir						
Bölümdeki bilgisayar yazılım olanakları e-öğrenme için yeterlidir						
Bölümdeki İnternet bağlantı hızı e-öğrenme için yeterlidir						
Bölümdeki İnternet bağlantı kesiksizdir						
Bölüm yönetimi e-öğrenmeye önem vermektedir						
Bölüm elemanları e-öğrenmeye isteklidir						
Bölümümüz e-öğrenmeye hazırdır (çalışmalar hemen başlayabilir)						
Bölümümüzün e-öğrenmeye başlaması için çözülmesi gereken problemler vardır						

Bölümünüzün e-öğrenmeye başlaması için çözülmesi gereken problemler olduğunu düşünüyorsanız lütfen bu problemleri belirtiniz:

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## II. Bireysel Açıdan Hazır Olma Durumu

9. Kişisel bilgisayarım (masa üstü, diz üstü, tablet, vb.) var Evet Hayır  
 10. Evimde İnternet bağlantısı var Evet Hayır  
 11. İnternet bağlantısı olan akıllı telefonum var Evet Hayır

<b>Teknoloji Kullanımı</b>	Hemen her zaman	Sık sık	Bazen	Nadiren	Asla/Hiç
<b>12. Aşağıda listelenenler için kullanım sıklığınızı belirtiniz</b>					
İnterneti bilgi kaynağı olarak kullanım					
E-postayı öğrencilerimle ve meslektaşarımla iletişim aracı olarak kullanım					
Ofis yazılımlarını (PowerPoint, Word, Excel gibi) içerik geliştirmek ve sunum için kullanım					
Sosyal ağ sitelerini (Facebook, Twitter gibi) kullanım					
Alanımla ilgili özel yazılımları (SPSS gibi) kullanım					
Anında mesajlaşma araçlarını (MSN, Skype gibi) kullanım					
Web 2.0 araçlarını (Blog ve wiki gibi) bilgi paylaşımı amacıyla kullanım					
Belge ve dosya paylaşım araçlarını/yazılımlarını (Google Documents ve Dropbox gibi) kullanım					
İçerik yönetim yazılımlarını (Blackboard ve Moodle gibi) kullanım					
Online forumları, tartışma listelerini meslektaşarımla iletişim amacıyla kullanım					
Mobil teknolojileri (akıllı telefonlar) İnternete erişmek için kullanım					

<b>Kendine Güven</b>	Tamamen katılıyorum	Katılıyorum	Kararsızım	Katılmıyorum	Hiç katılmıyorum
<b>13. Aşağıda sıralanan konularda kendinizi değerlendiriniz</b>					
E-öğrenme konusunda bilgi sahibiyim					
Bilgisayarı kendimden emin şekilde kullanım					
Ofis programlarını (Power Point, Word, Excel gibi) kendimden emin şekilde kullanım					
İnternet web tarayıcıları (İnternet Explorer, Google Chrome gibi) kendimden emin şekilde kullanım					
Arama motorlarını (Google, MSN Search gibi) kendimden emin şekilde kullanım					
Bilgisayar kullanımı sırasında karşılaştığım sorunları çözebilirim					
Dijital dosya yönetim araçlarını (bilgisayardaki bir dosyayı silmek veya yeni bir isim vermek gibi) kendimden emin şekilde kullanım					
E-öğrenme materyalleri hazırlayacak bilgi ve becerilere sahibim					
E-öğrenme materyalleri hazırlayacak yazılımları kendimden emin şekilde kullanabilirim (Movie Maker, Microsoft Publisher gibi)					
İçerik yönetim yazılımlarını kendimden emin şekilde kullanabilirim (Blackboard, Moodle gibi)					
Web sayfası tasarlayabilirim					
Online forumları yönetebilirim					
E-öğrenme için çalışma rehberleri yazabilirim					
E-öğrenmeyle ilgili yasal konuları (telif hakkı, mahremiyet, gizlilik gibi) bilirim					
E-öğrenme materyalleri hazırlayacak zamanım var					
E-öğrenmeyi öğretim etkinliklerimde kullanmaya kendimi hazır hissediyorum					

<b>İsteklilik ve Kabullenme</b>					
<b>14. Aşağıda sıralanan konularda görüşlerinizi belirtiniz</b>	Tamamen katılıyorum	Katılıyorum	Kararsızım	Katılmıyorum	Hiç katılmıyorum
E-öğrenme materyalleri hazırlamaya istekliyim					
E-öğrenme alanımdaki teorik eğitime uygulanabilir					
E-öğrenme alanımdaki uygulamalı eğitime uygulanabilir					
Öğrencilerimin e-öğrenmeden memnun kalacağına inanıyorum					
Öğrencilerimin e-öğrenmeyi kolay bulacağına inanıyorum					
E-öğrenmenin verdiğim eğitimin kalitesini artıracığına inanıyorum					
E-öğrenmenin üretkenliğimi artıracığına inanıyorum					
E-öğrenmenin geleneksel sınıf eğitiminden daha etkin olacağına inanıyorum					
E-öğrenme ile öğrencilerin hocalarıyla daha etkin iletişim kuracağına inanıyorum					
E-öğrenmenin uygulanmasının kolay olacağına inanıyorum					
E-öğrenmenin Bölümümde başlamasını destekliyorum					

<b>Eğitim Gereksinimi</b>					
<b>15. Aşağıda sıralanan konularda görüşlerinizi belirtiniz</b>	Tamamen katılıyorum	Katılıyorum	Kararsızım	Katılmıyorum	Hiç katılmıyorum
E-öğrenme konusunda eğitime gereksinimim var					
Öğrencilerimin e-öğrenme konusunda eğitime gereksinimleri var					
Bölüm personelinin e-öğrenme konusunda eğitime gereksinimleri var					

Konuyla ilgili belirtmek istediğiniz başka hususlar varsa burada belirtiniz:

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