

AN ASSESMENT OF ON-LINE INSTRUCTOR: A CASE STUDY FOR AN
EFFECTIVE E-LEARNING INSTRUCTOR FROM E-LEARNERS' PERSPECTIVES

A THESIS SUBMITTED TO
THE GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES
OF
MIDDLE EAST TECHNICAL UNIVERSITY

BY

FATMA KANAR

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF SCIENCE
IN
THE DEPARTMENT OF COMPUTER EDUCATION AND
INSTRUCTIONAL TECHNOLOGIES

NOVEMBER 2003

Approval of the Graduate School of Natural and Applied Sciences

Prof. Dr. Canan ÖZGEN
Director

I certify that this thesis satisfies all the requirements as a thesis for the degree of Master of Science.

Prof. Dr. M. Yaşar ÖZDEN
Head of Department

This is to certify that we have read this thesis and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Master of Science.

Asst. Prof. Dr. Soner YILDIRIM
Supervisor

Examining Committee Members

Prof. Dr. M. Yaşar ÖZDEN

Asst. Prof. Dr. Soner YILDIRIM

Asst. Prof. Dr. Zahide YILDIRIM

Asst. Prof. Dr. Ercan KİRAZ

Dr. Hasan KARAASLAN

ABSTRACT

AN ASSESMENT OF ON-LINE INSTRUCTOR: A CASE STUDY FOR AN EFFECTIVE E-LEARNING INSTRUCTOR FROM E-LEARNERS' PERSPECTIVES

Kanar, Fatma

Master of Science (M.S.), Department of Computer Education and
Instructional Technologies

Supervisor: Asst. Prof. Dr. Soner Yıldırım

November 2003, 89 pages

The purpose of this study was to investigate the characteristics of a qualified e-learning instructor from e-learners' perspectives by submitting a questionnaire to e-learners of "CSIT444-Online Web Design" course offered through the means of distance learning at the Eastern Mediterranean University. The study explored on-line instructor's administrative support, instructional competency, proficiency in applying the systems used in the course, in other words, technical knowledge and skills and on-line instructor's evaluation criteria of the on-line course. The study used the data obtained from 45 students, the instructor and an assistant of Eastern

Mediterranean University. For this research, descriptive study was carried out and qualitative results were given at the end of the study. The results investigated students' perceptions about the on-line course they were introduced prior to the application of the questionnaire. The results of the questionnaire demonstrated that the course was found effective, interesting and motivating for students with the animations, free lecture notes, forums, chat rooms, links to e-sources, chance for interaction and immediate feedback that enhance student creativity and self study. The findings included the recommendations for teachers in on-line learning environment. The study also provides the framework of the on-line instructors' role by means of on-line learning environment. The results were demonstrated at the end of the study.

Keywords: On-line collaboration, E-Learning (On-line learning), E-Learning Instructor (On-line Instructor), Distance Education

ÖZ

ÇEVİRİM İÇİ ORTAMDA ÖĞRETMENİN DEĞERLENDİRİLMESİ: ÖĞRENCİ GÖRÜŞLERİNDEN YARARLANARAK BİR ÖĞRETMENİN ETKİNLİĞİNİN ARAŞTIRILMASI İÇİN DURUM ÇALIŞMASI

Kanar, Fatma

Master, Bilgisayar ve Öğretim Teknolojileri Eğitimi Bölümü

Tez Yöneticisi: Y. Doç. Dr. Soner Yıldırım

Kasım 2003, 89 sayfa

Bu tezin amacı, Doğu Akdeniz Üniversitesi'nde uzaktan eğitim programında verilmekte olan "CSIT444-Online Web Design" dersini alan öğrencilerin görüşlerinden yararlanarak nitelikli bir öğretmenin özelliklerini araştırmaktır. Bu araştırmada, öğretmenin dersi uygulamadaki desteği ve yeterliliği, öğretmenin öğretimsel yeterliliği, derste kullanılan sistemi kullanma yeterliliği bir başka deyişle teknik bilgi ve becerisi ve öğretmenin dersi değerlendirme kriterleri öğrencilere uygulanmış olan bir anket yardımıyla araştırılmaktadır. Araştırmaya, Doğu Akdeniz Üniversitesi'nde çevrim içi öğrenme ortamında "CSIT444-Online Web Design"

dersini alan 45 öğrenci, bir öğretmen ve 1 asistan iştirak etmiştir. Bu çalışmada, nicel araştırma tekniği uygulanmış ve elde edilen sayısal ve sözel sonuçlar çalışmanın sonunda verilmiştir. Sonuçlar, bu çalışmaya katılan öğrencilerin öğretmenle ilgili düşünce ve görüşlerini ortaya koymaktadır. Bulgular, bu çalışmaya katılan öğrencilerin çevrimiçi öğrenme ortamında verilen dersle ilgili düşünce ve görüşlerini ortaya koymaktadır. Öğrencilerin görüşlerine sunulan ders, anket sonuçlarına göre, kullanılan animasyonlar, serbest kullanıma açık ders notları, forumlar, konuşma odaları, öğrencilerin birbirleriyle ve öğretmenleriyle iletişim şansı ve onlardan aldıkları dönüt düşünüldüğünde etkili, ilgi çekici ve motive edici bulunmuştur. Bu da öğrencilerin kendi kendilerine konuyu öğrenmelerine ve yaratıcılıklarını güçlendirmelerine imkan vermektedir. Bulgular, öğretmenlere çevrim içi öğrenme ortamında dikkat edilmesi gereken unsurlar konusunda öneriler içermektedir. Bununla birlikte, derste öğretmenin rolüne ilişkin bulgular sunulmuştur. Sonuçlar çalışmanın sonunda sunulmaktadır.

Anahtar Kelimeler: Çevrim İçi Ortamda Birlikte Öğrenme ve Birlikte Çalışma, Çevrim İçi Öğrenme, Çevrim İçi Öğretmen, Uzaktan Eğitim

To my parents and little niece,

ACKNOWLEDGEMENTS

I would like to thank my supervisor, Asst. Prof. Dr. Soner Yıldırım, who trusted and accepted me to the department, encouraged and guided me in writing in all parts of this thesis with his knowledge.

I also express my sincere appreciation to the other faculty members, Prof. Dr. Yaşar Özden, Asst. Prof. Dr. Soner Yıldırım, Asst. Prof. Dr. Zahide Yıldırım, Asst. Prof. Dr. Ercan Kiraz and Assoc. Prof. Dr. Safure Bulut for their suggestions and comments.

I would like to thank to, Prof. Dr. Yaşar Özden, who helped me with his knowledge and gave me his article and all the information about the on-line course.

I would like to thank to, Prof. Dr. Ömer Geban, who helped me in the analysis part of the study with his knowledge.

I would also like to express my deepest gratitude to Prof. Dr. Metin Durgut, an instructor at Faculty of Arts and Sciences department of Physics at METU, encouraged and guided me to apply the master program.

I want to give my special thanks to my exceptional friend, Ebru Özkan, who helped me in all parts of the study with her knowledge, and goodness.

Thanks are also to everyone that helped me directly or indirectly in the development and writing of this thesis by providing guidance and support.

Finally, my deepest thanks are to my parents, especially my mother and little sister who motivated and supported me with their never ending patience, tolerance and understanding throughout the study.

TABLE OF CONTENTS

| | |
|--|------|
| ABSTRACT..... | iii |
| ÖZ..... | v |
| ACKNOWLEDGEMENTS..... | viii |
| TABLE OF CONTENTS..... | x |
| LIST OF TABLES..... | xiii |
| LIST OF FIGURES..... | xiv |
| CHAPTER | |
| 1. INTRODUCTION..... | 1 |
| 1.1 Background and Rationale of the Study..... | 1 |
| 1.2 Purpose of the Study..... | 4 |
| 1.3 Significance of the Study..... | 6 |
| 1.4 Definition of Important Terms..... | 6 |
| 2. REVIEW OF LITERATURE..... | 10 |
| 2.1 E-Learning..... | 10 |
| 2.1.1 Levels of E-Learning..... | 12 |
| 2.2 Advantages of E-Learning..... | 13 |

| | |
|--|----|
| 2.3 Disadvantages of E-Learning..... | 17 |
| 2.4 The Instructor in E-Learning..... | 19 |
| 2.5 The Role of Instructor in E-Learning..... | 19 |
| 2.5.1 Administrative Actions..... | 21 |
| 2.5.2 Facilitative Actions..... | 22 |
| 2.5.3 Technical Actions | 24 |
| 2.5.4 Evaluative Actions..... | 26 |
| 2.6. Planning a Course for E-Learning..... | 28 |
| 2.7 Pedagogical Considerations..... | 32 |
| 2.8 Summary..... | 34 |
| 3. METHOD..... | 36 |
| 3.1 Overall Design of the Study..... | 36 |
| 3.1.1 Ratio for Data Analysis Techniques..... | 37 |
| 3.2 Subjects..... | 39 |
| 3.3 Variables..... | 39 |
| 3.4 The Instrument..... | 41 |
| 3.5 Technical Features of the Online Material..... | 44 |
| 3.6 Data Collection Procedures..... | 48 |
| 3.7 Data Analysis..... | 49 |
| 3.8 Assumptions for the Study..... | 50 |
| 3.9 Limitations of the Study..... | 51 |
| 4. RESULTS AND CONCLUSIONS..... | 52 |
| 4.1 Analysis of the Responses..... | 52 |

| | |
|---|----|
| 4.2 Statistical Analysis..... | 53 |
| 4.2.1 Assumptions of Multivariate Analysis of Variance..... | 53 |
| 4.2.2 Multivariate Analysis of Variance Model..... | 55 |
| 4.3 Summary of Statistical Analysis..... | 61 |
| 4.4 Qualitative Analysis | 62 |
| 4.4.1. Analysis of Open Ended-Question..... | 62 |
| 4.5. Summary for Analysis of Open Ended-Question..... | 65 |
| 5. DISCUSSIONS, IMPLICATIONS AND RECOMMENDATIONS..... | 66 |
| 5.1 Major Findings..... | 66 |
| 5.2 Discussions..... | 71 |
| 5.3 Conclusion..... | 73 |
| 5.4 Recommendations for Practice..... | 78 |
| 5.5 Recommendations for the Further Study..... | 79 |
| REFERENCES..... | 80 |
| APPENDICES..... | 87 |
| Appendix A..... | 87 |

LIST OF TABLES

TABLE

| | |
|--|----|
| 4.1 Levene's Test of Equality of Error Variances for Gender..... | 54 |
| 4.2 Levene's Test of Equality of Error Variances for Grades..... | 54 |
| 4.3 Levene's Test of Equality of Error Variances for Messages..... | 55 |
| 4.4 MANOVA Test Results for Gender..... | 55 |
| 4.5 MANOVA Test Results for Grades..... | 56 |
| 4.6 MANOVA Test Results for Messages..... | 56 |
| 4.7 Test of Between-Subjects Effect for Gender..... | 57 |
| 4.8 Test of Between-Subjects Effect for Grade..... | 59 |
| 4.9 Test of Between-Subjects Effect for Messages..... | 60 |

LIST OF FIGURES

FIGURE

| | |
|---|----|
| 3.1 Main Page for “CSIT444-Online Web Design” Course..... | 47 |
|---|----|

CHAPTER 1

INTRODUCTION

1.1 Background and Rationale of the Study

Technology has been changing day by day and the education paradigm is being influenced from these changes. Today, institutions and instructors have been changing their roles in education. Computers are extensively used in every field and institutions including education. They provide learners to learn on their own, at their own pace by interacting with each other and the teacher. Students read texts, access to on-line libraries that open gates of the virtual information world.

The Internet provides learners to involve in interactive environments actively: they can join group discussions and chats or they can collect information from individuals or get direct feedback from their mates and teachers through e-mail. Students learn in technology oriented classrooms and they improve their individual learning skills. Teachers move from traditional classroom teacher model to facilitators. Teaching materials are more enthusiastic and attractive with their “Quick Time movies, animations, tests with immediate feedback on computer” (Yaşar, 1996; p.3), that provides students to interact with the learning environment, save time and

do more practice on what they learn. “The primary benefit of the internet is that it makes students aware that they are parts of a global community” (Yaşar, 1996; p.670). By communicating with experts and teachers from all over the world, learners become authorities in their own learning environments.

From past to now on, there are many improvements in education; the first university that used distance education technologies was Pennsylvania State University, which “established its first network and used US mail to communicate with its students. In 1930s, electronic technology, which begins with radio broadcasting, enabled learning to spread and reached to the learners who wanted to be educated. In 1960s, the UK government established the British Open University the idea of which was brought forefront by Harold Wilson as “ the University of the Air” (Bates, 1984; p.3).

The Open University delivered its courses by broadcasting its video course components on the BBC network (Brown & Brown, 1994; p.7). Having taken Open University as a model, many other open universities were established in different countries from Thailand to Japan, South Africa to India and so on.

The rapid change in technology causes distance education to become more sufficient in the need of accessing knowledge and information to a large number of people, necessity of training workers for completely new industries. Moreover, this rapid development in technology also causes a shift to computer based teaching and

learning from broadcasting and teleconferencing; a change in information technologies.

The process of learning “can occur at the same time in the same place (e.g. in classrooms), at the same time in different places (e.g. via broadcasts or satellite telecasts), at different times in the same place (e.g. in libraries or resource centers), or at different times in different places (e.g. different libraries or on-line)” (Locatis and Weisberg, 1997; p.102). The instructor, and the instructor role gain importance when the learning process occurs.

One of the most important characteristics of the use of the Internet in education is “ends and means can be entirely teacher or student determined, or the responsibility can be shared” (Locatis and Weisberg, 1997; p.102). If teachers determine ends, means, and learners are responsible for searching, learning takes place by discovery. If learners choose goals and teachers guide them about how to achieve information, “instruction is prescribed,” and if learners choose their own goals, independent study and learning occur (Locatis and Weisberg, 1997; pp.102-3).

On-line instructor plays an important role in on-line learning environment. “Putting content on a web page is no guarantee of learning. There is a big difference between information and instruction, and this basic principle is as true on the Web as anywhere. Since Thorndike at the beginning of the 20th century, we have known that learners learn what they do, not what you tell them. Dave Merrill made the same point by arguing that instruction requires *practice* and *feedback*. Without those two

key ingredients, there is no instruction—simply the delivery of information.” (Rosset, 2002; p.366)

1.2 Purpose of the Study

There are various types of e-learning environments for learners in many sectors like education. The study investigates on-line learning instructor’s characteristics in an on-line learning environment via the Internet by using computer technologies and programs. By this way it aims to make the learning more effective.

Even though e-learning is a new experience for many of the e-teachers, the course may open new dimensions in teachers’ minds about the effects of improvements in technological arena.

The main purpose of this study is to explore properties of an on-line instructor in four areas ; administration, facilitation, technical and evaluation, and the role of instructor in e-learning environment by examining an on-line course. Since the course is on-line computer course, for effective on-line teaching and learning process the instructor used variety of e-learning tools. Therefore, the second purpose is to explore learners’ perceptions about the efficiency of the course based on the following research questions:

Research Questions:

Main Research Question: What are learners' perceptions of a qualified e-learning instructor?

Question 1: How the teacher enhance students' comfort level by providing them with the necessary materials like syllabus, assignments and discussion topics and source that they will be able to make use when they're learning the course, give immediate feedback and help the students contact with their advisors to solve their problems about the course?

Question 2: How the teacher engage students in the learning of the course support/enable interaction between and among students, question the students' level of understanding and make students be effective learners?

Question 3: What are the characteristics of an on-line instructor's technical knowledge and skills to conduct an on-line course?

Question 4: What are the characteristics of on-line instructor's evaluation techniques used in the grading criteria and provide assistance in meeting the course objectives?

1.3 Significance of the Study

Effective learning takes place in an enjoyable, relaxing and challenging environment. In computer-mediated learning environments, in order to achieve the teaching/learning environments, it is important to make learning more attractive by using lively animations, colorful pictures, games, music and related activities which enable students to learn by doing and which enhance students' active involvement in the learning process.

This study is conducted to examine what are the properties of on-line instructors providing effective teaching/learning environments by the help of necessary programming tools and programs on e-learners. The given course is changed the instructional type from traditional (this is a computer course CSIT444-On-line Web Design so the instructor may give the lessons both in a classroom and computer laboratory) to on-line. Therefore, it is important to find out whether the instructor changed his role according to on-line environment or not, and whether the course are effectively transferred to web pages or not by the instructor by means of a questionnaire.

1.4 Definition of Important Terms

In this section, some important terms that were used in this study are explained in order to make the understanding of the study more clear.

Internet: The Internet is a system that covers a network of computers to enable communication and exchange of information. These computers can be located at a distance all around the world and are wired together by telephone lines, undersea cables, satellite downlinks, uplinks, and fiber optic cables. Some of the services of the Internet are World Wide Web, Telnet, E-mail (electronic mail) and FTP (File Transfer Protocol).

WWW (World Wide Web): It is one of the services of the Internet. WWW can be accessed with browsers and it is made up of web pages that are shown in a hypertext format. WWW browsers can handle text, picture, animation, audio and video, which make WWW the most used service of the Internet.

WWW-based Instruction: Information delivered over the WWW for teaching purposes is called WWW or Web-based instruction. Learners and teachers are generally at a distance and can be anywhere around the world. Web-based instruction includes hypertext documents, hypermedia tools and WWW itself.

Distance Education: The similar meaning with the E-learning (On-line Learning). The essential characteristics of distance education (DE) are a separation of teacher and learner by space and/or time. These defining characteristics are precisely what give DE its unique ability to leverage an instructor's abilities as a teacher across the broadest possible audience. That this leverage exists at all is testament to the technological efficiency of DE, but as for the effectiveness of DE as a teaching venue, we rely on the teacher's competency with the medium. This

competency is measured by a teacher's proficiency with the tools used to communicate with their students and the skill with which those tools are selected and integrated to maximize student engagement. This latter measure of competency involves a level of planning which is cognizant not only of established pedagogical practices, but also of unique performance characteristics of the technology available, selected, and employed. The development of quality distance education materials involves broad and deep knowledge across the instructional triad of content - pedagogy - technology.

Distance Educator: The "distance educator" as the same with E-Learning Instructor (On-line Instructor) will be defined as the person or persons responsible for supplying the course structure and directing the content. The educator will also facilitate communication to individual students and to the class as a whole. The educator will also assess student work.

Distance Learner: The "distance learner" (E-Learner) will be defined as the individual who participates in the learning as directed or agreed upon by the distance educator.

E-learning (On-line Learning) : The delivery of a learning or education program by electronic means. E-learning involves the use of a computer or electronic device (e.g. a mobile phone) in some way to provide educational or learning material. E-learning can involve a greater variety of equipment than On-line training or education, for as the name implies, "On-line" involves using the Internet or an Intranet. CD-ROM and DVD can be used to provide learning materials.

Asynchronous training: Asynchronous training - This involves self-paced learning, either CD-ROM-based, Network-based, Intranet-based or Internet-based. It may include access to instructors through On-line bulletin boards, On-line discussion groups and e-mail. Or, it may be totally self-contained with links to reference materials in place of a live instructor.

Synchronous training: Synchronous training is done in real-time with a live instructor facilitating the training. Everyone logs in at a set time and can communicate directly with the instructor and with each other. It lasts for a set amount of time -- from a single session to several weeks, months or even years. This type of training usually takes place via Internet Web sites, audio- or video-conferencing, Internet Telephony or even two-way live broadcasts to students in a classroom.

CHAPTER 2

REVIEW OF LITERATURE

This chapter provides a review of literature related to the following areas in the study: e-learning, advantages and disadvantages (limitations) of e-learning, pedagogical considerations, properties of e-learning instructor, technology's and e-learning instructor's role in improving the teaching and learning process in e-learning.

2.1 E-learning

In the 21st century, education has changing from a teaching (instruction) paradigm to a learning paradigm. In the learning paradigm, students must be active discoverers and constructors of their own knowledge. (Skolnik, 1998; pp.635-650)

From e-mail to real-time chat rooms to asynchronous conferencing software, the Web has played a large role in the computerization of the classroom. The new technology, and on hailing the potential of these advances to foster learning

environments where students can collaborate with one another and take on increased responsibility for their own learning (Moore & Kearsley, 1995).

Although on-line classrooms focuses on collaboration, it is important to point out that on-line classrooms are not necessarily collaborative in nature. McCabe (1998), Berge (1996) and Eastmond (1995) all offer cases of on-line classrooms modeled on traditional, non-collaborative educational models. (Teles et al., 2001). At this time the importance of the on-line instructors is appearing.

The quality of the electronic-based training, as in every form of training, is in its content and its delivery. E-learning can suffer from many of the same pitfalls as classroom training, such as boring slides, monotonous speech, and little opportunity for interaction. The beauty of e-learning, however, is that new software allows the creation of very effective learning environments that can engulf you in the material.

E-learning can be CD-ROM Based, Network-based, Intranet-based or Internet-based. It can include text, video, audio, animation and virtual environments. It can be a very rich learning experience that can even surpass the level of training you might experience in a crowded classroom. It is self-paced, hands-on learning.

In developing a faculty for the on-line environment, there is a strong need for instructors to make the transition from a traditional to an on-line role. The primary role transformation that occurs with the conception of an on-line environment is one

of the teachers as a “transmitter of knowledge” to a facilitator of communication and discourse. The on-line educator must promote dialogue and active learning through a variety of learner-centered activities. The construction is divided into four categories: support systems, faculty, curricula, and web-based tools. The author addresses the ancillary concerns of students such as registration, academic support, and technical support. (Lynch, 2002)

2.1.1 Levels of E-learning

E-learning falls into four categories, these are the levels of e-learning from the very basic to the very advanced. The categories are:

1. Knowledge databases -- Databases which are the most basic form of e-learning, offer indexed explanations and guidance for software questions, along with step-by-step instructions for performing specific tasks on software sites. These are moderately interactive, meaning that you can either type in a key word or phrase to search the database, or make a selection from an alphabetical list.
2. On-line support - On-line support is also a form of e-learning and functions in a similar to knowledge databases. On-line support comes in the form of forums, chat rooms, on-line bulletin boards, e-mail, or live instant-messaging support. Besides on-line support offers the opportunity for more specific questions and answers, as well as more immediate answers, and it is slightly more interactive than knowledge databases.

3. Asynchronous training - This involves self-paced learning, either CD-ROM-based, Network-based, Intranet-based or Internet-based. It may include access to instructors through on-line bulletin boards, on-line discussion groups and e-mail. Or, it may be totally self-contained with links to reference materials in place of a live instructor.
4. Synchronous training - Synchronous training is done in real-time with a live instructor facilitating the training. Everyone logs in at a set time and can communicate directly with the instructor and with each other. It lasts for a set amount of time -- from a single session to several weeks, months or even years. This type of training usually takes place via Internet Web sites, audio- or video-conferencing, Internet Telephony or even two-way live broadcasts to students in a classroom. (Hofmann, 2003)

2.2 Advantages of E-Learning

E-learning has definite advantages when we compare with traditional classroom training. While the most obvious ones are the flexibility and the cost savings from not having to travel or spend excess time away from work, there are also others that might not be so obvious. For example:

- It's less expensive to produce - Using software to produce your own asynchronous training programs, e-training is very cheap. Synchronous programs will have continued costs associated with the instructor managing

the class, but will still be lower than traditional courses.

- It's self-paced - Most e-learning programs can be taken when needed. Students attending courses work at their own pace and on their own which provide a more convenient environment for them. (Bell, 1997; p.1).
- It moves faster - According to an article by Jennifer Salopek in "Training and Development Magazine," e-learning courses progress up to 50 percent faster than traditional courses. This is partly because the individualized approach allows learners to skip material they already know and understand and move onto the issues they need training on. Moreover, they can have immediate feedback better than traditional classrooms on quizzes and questions fundamentally by e-mail. (Bell, 1997; p.1). E-learning courses can build in immediate feedback to correct misunderstood material. If no feedback is given, then the next step may be building upon an incorrect interpretation.
- It provides a consistent message - E-learning eliminates the problems associated with different instructors teaching slightly different material on the same subject.
- It can work from any location and any time - E-learners can go through training sessions from anywhere, usually at anytime. This Just-In-Time (JIT) benefit can make learning possible for people who never would have been able to work it into their schedules prior to the development of e-learning. (If you manage a corporate learning program, however, be careful about requesting that workers learn on their own time from home.) A large number of students can enroll in the distance education environments for the instruction is not limited by geography and time (Bell, 1997; p.1).

- It can be updated easily and quickly - E-learning sessions are easy to keep up-to-date because the updated materials are simply uploaded to a server. CD-ROM-based programs may be slightly more expensive to update and distribute, but still come out cheaper than reprinting manuals. “It also does allow for a lot of flexibility in materials: adding things to the web site, clarifying things, putting up a new link as you discover new materials that might be suitable. So, I was able just to put up a really quick link and say, "Here, take a look at this additional article." Therefore, that kind of flexibility and sort of 24/7 capabilities of the technology are really the advantage. Whereas in a face-to-face class, you may not do that quite as much, especially if you're confronted with various kinds of budgetary issues--like not having students run out to buy an additional book, or not having any photocopying budget left over to make a set of photocopies of an article in the newspaper.” (Duber, 2001)
- It can lead to increased retention and a stronger grasp on the subject - This is because of the many elements that are combined in e-learning to reinforce the message, such as video, audio, quizzes, interaction, etc. There is also the ability to revisit or replay sections of the training that might not have been clear the first time around. Another contribution of e-learning is that it can improve retention of learners. In addition to catering to these neural systems' needs, training should also incorporate other elements such as interaction, imagery and feedback.
- It can be easily managed for large groups of students – Instructors schedule or assign training for learners and track their progress and results and also can

review a student's scores and identify any areas that need additional training.
(Rosset, 2002; pp. 10-13)

- There is more interaction from student-teacher, teacher-student, student-student and creating a course on the web does not cost more than creating a traditional education course and creating a virtual university is more cheaper than building new campuses (Bell, 1997; p.1). E-learning environment supports interactivity to learn. For instance, games where e-learners go through a series of tasks, learning about the environment, and use tools they've discovered along the way, can take e-learners through an adventure. Being able to explore, try, succeed or fail makes good training. For example, you may be a human resources manager taking an e-course on hiring techniques. The course might include a series of video and audio segments that take you through the processes. Then a game would begin that takes you through those same processes where you make the decisions in a virtual world. When you do rather than simply read or listen to something, you retain more of the information, and learning from mistakes is one of the best ways to ensure you don't make those mistakes again. (Kelly, 2000) Chat rooms, discussion boards, instant messaging and e-mail all offer effective interaction for e-learners, and do a good job of taking the place of classroom discussion. Building an on-line community significantly influences the success of on-line programs. (Rosset, 2002; pp. 208-211)
- E-learning can incorporate many elements that make learning new material, a new process or a new program more fun. Making learning more fun -- or interesting -- is what makes it more effective. If you aren't pulled into the

material, you really aren't learning as well as you could be. This is what makes e-learning so great for so many types of learning. E-learning is motivating. Knowing the course you are taking is going to have some "fun" elements like video, audio, animation and the "gaming" scenario creates more interest in learning. This leads to better retention and faster learning. Other motivating factor is that it offers, such as being able to go through the course any time and anywhere (almost). Games, quizzes and even just required manipulation of something on the screen creates more interest, which in turn builds better retention.

- Varying the types of content - Images, sounds and text work together to build memory in several areas of the brain and result in better retention of the material. Besides the bigger issues like interaction, control of the pace, and motivation, e-learning can put to use the information that researchers have been studying for the past 30 or more years. These studies have identified things that can affect memory and recall with using colors and specific color combinations, combining images with words, combining sounds (or voice or music) with images, using multiple types of media, using layouts. (Waller, 2000)

2.3 Disadvantages (Limitations) of E-Learning

There are many advantages of e-learning, and even the potential disadvantages (i.e. boring text-based courses, technophobia, loneliness) can be alleviated with a properly designed course.

They may be “incompatible systems and software, slow internet connections, and widely variant technical skill level of instructors and students” (Bell, 1997; p.2). Besides, more planning is needed than traditional courses by the help of instructional designers. Technical problems can occur more frequently and students cannot make use of chat programs that are the tools of asynchronous communication. There are also security issues related with the work submitted by the students. Teachers cannot be sure whether the student did it or not. Because, s/he does not see the learner (Bell, 1997; p.2).

A student who completed a teacher-training course, Authentic Materials in the English Language Classroom over the Internet says “ it was difficult sometimes to get my assignments to the instructor because of Internet connections”. (Duber, 2001)

Another disadvantage may be for instructors are time. “The 24/7 kind of availability of the instructor is tiring. Again, you need really good time-management skills not to let it overwhelm you. It is a time-management issue. There's a lot of e-mail. I counted at one point in the course I had received, in addition to what's going on in the bulletin board and on the course discussion list, 320 individual e-mails from the course participants. So, it takes some time-management skills and some strategies for working out how to deal with that volume of additional e-mail in your in-box.” (Duber, 2001)

2.4 The Instructor in E-Learning

'Teachers' in the e-learning are referred to as E-teachers, E-learning instructors or on-line (learning) instructors.

The instructor's role in the success of the course, the program, and student retention and achievement is clearly documented. In on-line learning, this role is even more critical, as the instructor has to overcome potential barriers caused by technology, time, and place and create an optimal environment for achieving educational goals. (Hofmann, 2003)

Students share the learning experience in technology-enriched environments with a teacher/facilitator whose primary role is to guide students rather than tell students the right answers (Barab, Hay and Duffy, 1998; p.22).

2.5 The Role of Instructor in E-Learning

Berge's instructor's roles - pedagogical, managerial, social, and technical - have been used as a starting point to analyze instructor postings in on-line settings, and to help organize the literature on the role of the on-line teacher (Berge 1995, 1996).

In order to investigate the role of instructors who are using collaborative on-line environments as part of their teaching the courses are given in which student participation in collaborative on-line discussions and projects was a significant component of the student's experience and assessment in the course.

Harasim et al. (1995) and Warschauer (1997) argue that on-line classrooms hold great potential for collaborative educational approaches because they feature many-to-many communication, place and time independence, and computer-mediated communication. These characteristics point to several critical focus areas in the investigation of the role of the instructor in the on-line environment: changes in the balance of student-instructor participation; a move towards active collaborative learning; changes in the teaching role towards increasing facilitation versus direct instruction (Lynch, 2002).

From many educational research asynchronous on-line learning instructor competencies as follows; administration, facilitation, technical, and evaluation. More clearly, a good on-line learning instructor has four different areas of action: administrative actions, facilitative actions, technical actions, and evaluative actions. Three other critical elements for a good on-line instructor are credible content knowledge, understanding of how people learn, and a desire to teach, are assumed to be present and are not addressed in these competencies. (Hofmann, 2003)

2.5.1 Administrative Actions

The primary goal of administrative actions is to assure smooth course operations, follow adherence to policies and procedures, and enhance student's level of comfort and retention. The actions of the instructor provide the framework for learning while reducing student apprehensions related to course content and procedures.

The managerial role refers to activities designed to make the course run smoothly at an administrative level. Management roles fall into three categories: managing individual students; managing discussion and working groups; managing course functions. (Mazzolini & Maddison; p.237)

A good on-line learning instructor who fullfills this administrative actions should set course agenda, objectives, rules, and decision-making norms, post timely bulletins about changes and updates to course, course materials (syllabus, assignments, discussion topics, etc.) at the beginning of the course. During first week of the course, the instructor should assure that all students are 'on board' and responding (contact privately by phone or e-mail if not) and returns student call/e-mail within 24 hours in addition to these on-line instructor should refer student problems to advisors and follows up to assure resolution. (Broadbent,Legassie, 2003)

2.5.2 Facilitative Actions

The aim of facilitation is to enrich cognitive outcomes related to course objectives and enhance community and collaboration among the learners. The facilitative actions of the instructor improves student satisfaction with the course and program.

The lack of nonverbal signals and social context cues means that in on-line classrooms, an education-ready atmosphere is built entirely from *virtual* tools and interactions. When facilitating asynchronous discussion forums, instructors should be encouraged to take more constructivist 'guide on the side' role. (Mazzolini & Maddison; p.237)

One of the key distinguishing features of on-line education, as compared with other forms of distance education, is the opportunity for instructors and students to interact via on-line asynchronous discussion forums (Rosman, 1999). Asynchronous discussion forums are used to a varying degree in different on-line academic programs, and in widely different ways. They can be used for social interaction only, for discussion of assignments and other assessable work, as a collaborative tool for individual project groups, for tutorial purposes, or as a central part of the teaching strategy. (Mazzolini & Maddison; p.238)

Depending on the purpose of the forum, instructors may (1) limit discussions to one or more instructor-initiated themes, (2) lead more general discussions, (3)

assume the role of answering most of the questions from students, (4) moderate the discussions but maintain a low profile in them, or (5) even be entirely absent from the discussions. (Thomas, 2001)

The educational philosophy underlying the design of an on-line program is crucial to the way in which instructors are expected to participate in on-line discussions. If the instructor assumes the 'sage on the stage' role then they will lead discussions and probably close where appropriate, and so would be expected to be amongst the most frequent contributors to the discussions. If, in contrast, the program has been designed according to a constructivist-type model meant to encourage students to initiate discussions and answer each other's questions, then the instructor, as the 'guide on the side', would probably not want to dominate the discussions. (Mazzolini & Maddison; p.238)

Bridging the instructor–student gap is always an important issue in distance education (Salmon, 2000). Effective discussion forum interactions are considered to support good on-line learning, and student–student interactions are believed to encourage students to feel that they are part of an on-line learning community. (Solomon, Mazzolini, Maddison, 2003; pp. 237–253)

In order to facilitate e-learning, on-line instructor should manage discussion and student interactions with leadership and direction, post thoughtful discussion

questions related to the topic and appropriate to the desired cognitive outcomes (Bloom's Taxonomy), moderate discussion, models desired methods of communication. The instructor should engage students, foster group learning, and sharing of learners' knowledge, questions, and expertise, contribute outside resources (on-line, print-based, others) and advanced content knowledge and insights, weaves together discussion threads. S/he should help students apply, analyze, and synthesize content, provide public and private acknowledgment to students who contribute to discussion, ask noncontributing students to participate in discussion privately (by email or phone), and minimum of 10% of discussion postings are from the instructor. (Broadbent, Legassie, 2003)

2.5.3 Technical Actions

The technical role involves choosing appropriate software to meet specific learning goals, and assisting students to become competent and comfortable users of the chosen software. (Teles et al., 2001)

The major goal of technical actions is to assure that technical aspects of the course are running smoothly and learner barriers stemming from technical components are being quickly overcome. Instructors need to become "comfortable and effective" with all the technology used in their web-based course (Parker, 1997, p. 9). Instructor modelling of technology use allows students to observe how to use it; a direct teaching technique which enhances student confidence in using technology (Brand, 1998). That is to say, the instructor's technical actions help make

the technology relatively transparent to the learner.

The design of the pages influences the type of communication that will occur within the course environment. While the creation and format of the pages will help maintain the flow of course, interaction and communication will provide the motivation for students to be successful in the course. During the on-line course, students will interact with the instructor, other students, and themselves. (Lynch, 2002).

Instructor competencies for on-line education include being able to competently use the technology in the course including course authoring software, communication technology such as e-mail, chat rooms, listservs, browsing the Internet or accessing electronic resources. Instructors need to become "comfortable and effective" with all the technology used in their web-based course (Parker, 1997, p. 9). Instructor modelling of technology use allows students to observe how to use it; a direct teaching technique which enhances student confidence in using technology (Brand, 1998). A danger in uninformed use of technology associated with web-based course delivery is shaping teaching and learning activities to fit the technology rather than using an appropriate technology that fits the activity. "The medium too often assumes a life of its own, supplanting the teacher and resulting in technology-bound activities that are debilitating to both teaching and learning" (Parker, 1997 p. 9).

An on-line instructor should be proficient with all technical systems used in

the course. Additionally s/he should help learners troubleshoot technical systems used in the course and refers to appropriate help sources, as needed, and help learners quickly feel comfortable with the system and the software.

For example, the skills required to design and implement a web-based course vary with each course; courses with multi-media elements including sound and video clips and video and audio-conferencing activities will require more expertise than text and graphics based materials. “Technical competency for instructors is more than knowing how to run software; it also includes a willingness to be innovative in using different technologies and combinations of technologies.” (Alley, 1996; Meyen et al., 1997).

2.5.4 Evaluative Actions

The on-line instructor’s evaluative actions aim to establish high standards, assure that students understand how they will be evaluated, and provide assistance in meeting course objectives.

“The opportunity to discuss evaluating student progress and mastery, as well as the how to evaluate the effectiveness of the on-line program. Using several pieces of student data that have been designed to measure specific objectives is the best way to evaluate student mastery. Providing a useful table structured around Bloom’s taxonomy that outlines appropriate and inappropriate measurements for various

learning objectives within an on-line learning environment (OLE) are useful. For determining, the effectiveness of the program, and creating a series of scaled evaluations that allow students to evaluate both the content and instructor of the on-line course. Lynch stresses the importance of pre-planning in creating the evaluations.” (Lynch, 2002)

Prior evaluative actions of the instructor are to provide students with clear grading criteria, examples of desired writing/assignments, resource ideas for completing assignments. The instructor should remind students about upcoming assignments and assist students who are having problems (by email or phone) completing the assignments. S/he should acknowledge receipt of assignments within 24 hours and return students assignments, with detailed notes and grade, within 96 hours. The instructor should contact (by email or phone) students who have not completed assignments within 24 hours after assignment due date and help student work out plan to complete assignments. S/he should expect college level writing (in highered courses) and grade/correct spelling and grammar mistakes. (Broadbent & Legassie, 2003)

Exemplify, in web-based courses, students "demand more feedback; and the more feedback they receive, the more interaction they want" (Brown, 1998).

2.6 Planning a Course for E-Learning

Planning the course on internet has many steps. The most important step in building any training program is planning. The worst experience anyone can encounter in an e-learning environment is finding traditional written training materials simply moved to the computer screen. And this is not only boring -- it's ineffective training and a waste of time for pretty much everyone involved so an instructor should focus on is easily incorporating multimedia and interactive elements into every training program.

The first step is determining of the group. Before anything is put on paper, the learners for the training has to be determined. If the instructor know who s/he is talking to and what their skill levels are, s/he can then begin the long task of putting the training program together.

Next, an instructor have to know what that the learners should know what are the objectives of the course. Also, the instructor should make sure the learners know those objectives from the beginning. The learner should know "What's in it for me?" and it plays a role in training.

The program should be designed with the delivery method in mind (i.e. Web-based, CD-ROM-based, Network-based) as well as the limitations of the users' hardware. This refers to first step. (Rosset, 2002; p. 333)

Navigation is another critical element of e-learning. Difficult navigation creates frustration and often encourages the student to leave the course (remember that "one click" escape). Setting up the navigation and look of the program is an important step and shouldn't be done without a lot of thought and testing.

The next step is organization of the course. Break your content up into manageable parts that are meaningful to your objectives. The better organized your materials, the easier it will be for the student to navigate. It should keep in mind that each module shouldn't exceed about 20 minutes. This equals about one hour of classroom-based training. (Mortimer, 2001)

Storyboarding is one method for organizing the materials, particularly if you plan to include any games, is to create a storyboard of the complete program. Creating a storyboard involves simply drawing blocks on a page that represent the frames (pages/screens) of your course. This will help instructor visualize the sections of the program and identify kinks in the flow. If the instructor do not create a storyboard , s/he should create at least a good outline of the material. Any of these steps toward organization will speed up the process.

Integrating media and interactivity: After creating outline and storyboard, on-line instructor should think about how to work interaction, animation, video and audio into the program. Animated graphic elements are great to use in training. They

are fun to watch, and can get a message across that words or audio (or even video in some instances) cannot. Text isn't necessarily seen as multimedia, but it is an important element in e-learning. The problem with many e-learning programs is that the developers have simply taken their existing text-based teaching and put it on the computer screen. Using types of animation may make more sense in many training instances. For example, you might have an audio clip that ends with a question posed to the student. If the student doesn't respond within a set amount of time, text could pop up that gives a hint or instructs the student to do something else.

This can be done, for example, by presenting information in one form (e.g. text on the screen stating a fact), then including an audio or video clip of something related that fact, then using the information to help the student create his or her own visualization of the fact. This last step could come in the form of a quiz that asks questions forcing the student to use reasoning to combine the two facts in order to come up with the correct answer. Or, it could be turned into a game that takes the student through a process that draws into play the two related bits of information. (Mortimer, 2001)

Besides these programs also include a function that allows you to index all of the text within the course. This makes it easy for a student to search for specific terms or formulas without having to go back through every screen.

Incorporating audio; the power of audio may often be overlooked, but the

combination of written and spoken words does have a big impact on recall and retention. The hard part is determining where to use audio, and knowing how much is too much.

Incorporating video; a paper by Rachel Ellis and Mark Childs, published in the Journal of Educational Media in 1999, discussed the The Broadnet Project, which was a study on the effectiveness of video as a learning tool in on-line multimedia modules. Their conclusions and recommendations based on the analysis of comments and perceptions of the trainees and the producers were:

- Use video stories to put the subject into its context of use.
- Use video clips followed by questions to encourage active participation from trainees and build on existing knowledge.
- Ensure that these clips have the information required to answer the questions.
- Limit the length of talking head video clips and use them to elaborate on specific points.

One of the training example (Trainersoft) allows the student to see the video (or hear the audio) immediately. Rather than waiting for the complete file to download, the student hears it as it is "streamed" to his or her computer. This only applies to Web or intranet-based training. There are, however, possibilities that could include links to the Internet for streaming media or other training media. This might be beneficial if that portion of the training is likely to change and need updates

frequently. By putting that portion of the training on the Web, updating the files is easier than recreating and distributing new CD-ROMs.

Incorporating quizzes and tests; interspersing the course with quizzes that pop up after material has been presented offers good feedback and reinforcement for learning. In most learning situations, the more immediate the feedback, the better -- it's the building effect of learning.

2.7 Pedagogical Considerations

The pedagogical role encompasses everything done to support the learning process of individual students or working groups. Based on the application of Vygotsky's socio cultural theory to an on-line course for pre-service teachers, Bonk, Daytner, Daytner, Dennen, and Malikowski (1999) provide a breakdown of ways instructors can use instruction and facilitation during on-line discussions. The following role behaviors fall clearly into the dimension of pedagogical functions: direct instruction; direct questioning; providing modeling or examples; giving advice or suggestions; fostering student reflection or self-awareness; pushing students to explore other sources of information; prompting students to explain or elaborate on their ideas; providing feedback or praise; cognitive task structuring; 'weaving' students' contributions into a single summary in order to capture and re-focus students on the essence of ongoing or completed discussions (Harasim et al., 1995).

There are some pedagogical considerations with giving the course on the net. To illustrate, Umors Dartmouth (on-line university in England) held a cyber Ed program which “establishes a relationship between the instructor and student” (Bell, 1997; p.3) rather than simple information transfer between both.

In order to make the course interactive, the learner needs, objectives, outcomes that are expected from learners should be determined prior to the course content. Afterwards, the “attributes for the information” and the links that connect these information should be determined (Forsyth, 1996; p.63). Additionally, whether the presentation of the course is user-friendly or not depends basically upon the slow modem, browser and your location (Forsyth, 1996; p.72).

In addition to these, knowing how learning takes place is an important component of pedagogical considerations. The Psychology of Learning begins with what goes on in a person's head when they are learning. First, learning requires attention. In order to be effective, training has to grab that attention and hold it. Unfortunately, the neural systems in the brain that control attention and store information as memory get tired very quickly (in minutes). They need to rest every three to five minutes, or else they become much less responsive. They recover pretty quickly, but training has to work with this quick fatigue/boredom pattern in order for the person to learn efficiently. In other words, those neurons will seek other stimulation usually not in the form of the presented training. (Hofmann, 2003)

2.8 Summary

Use of computers in the field of education makes students collaborate with each other and gives them certain skills for self-study. Besides, teachers' roles change as facilitators and guides. In e-learning, students' anxiety level decreases and they can access information whenever they need. Because there is a rich and an extended information media that they can easily reach to.

Students exchange information with their friends and the teacher and they control their own learning environment which also means that they are responsible for their own learning by means of on-line communication tools like chat, video-conferencing and e-mail. Besides, student-centered learning environments are quite beneficial in that students achieve different skills, which help them to solve problems to construct their own knowledge by communication and collaboration. Instructional technology is beneficial for learners in that students are motivated without being judged, they become autonomous learners who are responsible for their own learning, they can get prompt feedback and they gain self-confidence.

The Internet, in this sense, is a tool that students can access information whenever they need. It provides a more flexible educational and training setting instead of a more dependent environment, which brings socially different and geographically separated students together and helps them to reanalyze their own lives and world by getting feedback from each other.

Teachers' role is rather important in e-learning in that they should avoid misunderstanding and enable mutual understanding. They should also engage learners in conversations and guide them in the learning process, which come to mean that their role becomes more supporting rather than instructional.

CHAPTER 3

METHOD

In this chapter, the research design and the procedures used in this study are presented. This chapter is divided into nine major sections and they present the following parts respectively: overall design, subjects, variables, instruments, planning the on-line material, data collection procedures, data analysis, assumptions for the study, limitations of the study.

3.1 Overall Design of the Study

This is a type of research design that is conducted to get the opinions of on-line learners about the on-line instructor in four areas, which are administration, facilitation, technical, and evaluation to examine the properties of on-line instructor. For this study, a questionnaire was submitted to learners who attended the “CSIT444-On-line Web Design” on-line course from Distance Education Institute in Eastern Mediterranean University, fall semester in 2001/2002. The questionnaire (see Appendix A) includes 21 questions one of which is general open-ended.

3.1.1 Rational for Data Analysis Techniques

Many studies do not require qualitative analysis, but when it is important to make persons' experiences known which have more intricate details- that are gathered through interviews or open-ended questionnaires- when little is known about a phenomenon that should be made clear and when qualitative methods for data gathering are used for a research, qualitative research study will be better to be carried out (Strauss & Corbin, 1990, p: 19). It is important for qualitative researcher to have the following skills: "to step back and critically analyze the situations, to recognize and avoid bias, to obtain valid and reliable data and to think abstractly" (Strauss & Corbin, 1990, p: 18).

Although quantitative methods are described as more scientific and reliable than qualitative methods by many researchers, qualitative methods are more appropriate to "measure human behavior from outside" (Jones, 1997, p: 2) especially when the sample size is small and there are open-ended questions to examine or understand the sample group more clearly. Though "non manipulative or non controlling nature" (Olson, 1999, p: 2) of the qualitative method is the negative definitions of qualitative study, positive definitions are as follows: it is "holistic, environmental or contextual; inductive or dialectical; pluralistic or relative" (Olson, 1999, p: 2).

In this research study, since properties of the on-line instructor and the instructor' role has been viewed throughout the semester in the on-line course that

were considered as the basis of evaluation and since the evaluation was done by the learners themselves, who stated their opinions about the on-line instructor at the end of the semester by answering the questions in the questionnaire submitted to them, a case study, the results of which were evaluated through qualitative methods was conducted. This is a case study that will help determine properties of the on-line instructor according to the results taken from data.

On-line learners' points of view were evaluated by using qualitative methods in the light of formative evaluation which was conducted by an "internal evaluator" (Eastmond, 1996, p: 101) to obtain characteristics of on-line instructor and get feedback to the instructor who give the on-line course.

Although there is one general open-ended question, formative evaluation is important in that it allows the researcher/developer to know about the course of the project- whether the right procedures are being followed and how functional the materials are. Besides, such an evaluation method helps the developer determine the remedial by reviewing the instructor. Since the small group represents the target population better, the data gathered will probably give valid inferences about the instructor. For formative evaluation, initially, ten to thirty subjects are chosen from the target population. Afterwards, subjects are administered questionnaires (Gentry, 1994, p.166).

3.2 Subjects

Subjects of this study were all students participated in the “CSIT444-On-line Web Design” on-line course from Distance Education Institute in Eastern Mediterranean University, fall semester in 2001/2002 in Gazi Magusa. The study used data from 45 (15 female, 30 male) students who were submitted to a questionnaire at the end of the semester.

3.3 Variables

There are four dependent variables (DVs) administration, facilitation, technical stands for instructor’ technical knowledge and skills and evaluation and three independent variables (IVs) gender, grade, messages from students.

The dependent variables (DVs)

1. Administration: This variable represents the on-line learners’ perspectives about administrative actions of on-line instructor throughtout the semester. The higher the score on the scale the more the instructor manage on-line course.

2. Facilitation: This variable represents the on-line learners’ perspectives about facilitative actions of on-line instructor throughtout the semester. The higher the score on the scale the more the instructor facilitate on-line course.

3. Technical: This variable represents the on-line learners' perspectives about technical knowledge and skills of on-line instructor throughout the semester. The higher the score on the scale the more the instructor have technical knowledge and skills.

4. Evaluation: This variable represents the on-line learners' perspectives about evaluative actions of on-line instructor throughout the semester. The higher the score on the scale the more the instructor evaluate on-line course.

The independent variables (IVs)

1. Gender: It is a categorical variable with two levels: (0=female and 1=male).

2. Grade: It is a categorical variable with two levels: (0=unsuccessful and 1=successful. Here C+ and higher grades are coded as successful and under C+ grades are coded as unsuccessful).

3. Number of messages: It is a categorical variable with two levels: (0=low and 1=high. Here, average and higher # of messages are coded as high and under average # of messages are coded as low).

3.4 The Instrument

Questionnaire

To obtain relevant data for the variables discussed in previous section, the questionnaire “Instructor Evaluation for On-line Course” (see Appendix A) was prepared to survey learners’ perspectives. The questionnaire “Instructor Evaluation for On-line Course” likert-type scale instrument consisting of 20 items. At the end of the 20 questions, there is a general open-ended question. The questionnaire consists of four topics: administration, facilitation, technical an evaluation.

There are 4 questions under Administration, 8 questions under Facilitation, 2 questions under Technical and 6 questions under Evaluation. All responses were given on a 1 (strongly disagree) to 5 (strongly agree) likert-type scale. Coefficient alpha reliabilities are 0.89; 0.86, 0.92 and 0.86 for administration, facilitation, technical an evaluation. Overall, reliability ($\alpha=0.88$) coefficient is high indicating that total score give a reliable measure of attitudes toward on-line instructor.

In order to collect data, the questionnaire was adapted from many surveys on the net (the reliability coefficient was found to be 0.88) and it was submitted to the learners at the end of the semester (see Appendix A).

The topics/headings focus on the following areas:

Administration

- Setting course agenda, objectives, rules, and decision-making norms.
- Posting course materials (syllabus, assignments, discussion topics, etc.) at the beginning of the course.
- Posting timely bulletins about changes and updates to course.
- During first week, assures that all students are 'on board' and responding (contacting privately by phone or email if not).
- Returning student calls/emails within 24 hours.
- Referring student problems to advisors and follows up to assure resolution.

Facilitation

- Managing discussion and student interactions with leadership and direction.
- Posting thoughtful discussion questions related to the topic and appropriate to the desired cognitive outcomes (Bloom's Taxonomy).
- Moderating discussion, models desired methods of communication.
- Engaging students, fosters sharing of participants' knowledge, questions, and expertise.
- Contributing outside resources (on-line, print-based, others).

- Contributing advanced content knowledge and insights, weaves together discussion threads. Helping students apply, analyze, and synthesize content.
- Fostering group learning.
- Posting minimum of 10% of discussion as an instructor.
- Providing public and private acknowledgment to students who contribute to discussion.
- Asking privately (by email or phone) noncontributing students to participate in discussion.

Technical

- Proficiency with all technical systems used in the course.
- Helping students troubleshoot technical systems used in the course and refers to appropriate help sources, as needed.
- Helping students quickly feel comfortable with the system and the software.

Evaluation

- Providing students with clear grading criteria.
- Reminding students about upcoming assignments.
- Expects college level writing (in higher ed courses). Grades/corrects spelling and grammar mistakes.

- Providing examples of desired writing/assignments.
- Providing resource ideas for completing assignments.
- Assisting students who are having problems (by email or phone) completing the assignments.
- Acknowledging receipt of assignments within 24 hours.
- Returning students assignments, with detailed notes and grade, within 96 hours.
- Contacting (by email or phone) students who have not completed assignments within 24 hours after assignment due date. Helping student work out plan to complete assignments.

There is also an open-ended question to get general views and suggestions and evaluations of learners.

The learners' gender, grades and # of messages they post are known from the on-line course and they all are categorized with two levels.

3.5 Technical Features of the On-line Material

The present research study was designed to explore four role dimensions of an on-line instructor in on-line classroom environments. The on-line instructor had prepared on-line course web page considering the interaction between student-students, student-teacher/guidance.

“Today, the operating system MS-WINDOWS is commonly used by the learners so the instructor improved the software for on-line course properly. As a result, to attend the on-line course there should be:

- Windows 2000 Advanced Server
- WEB Server
- Exchange 2000 Enterprise Server
- Exchange 2000 Communication Server
- Site Server ILS Services
- Windows Media Services
- Snitz Forums 2000 Version 3.1 Service Release 4

(<http://forum.snitz>) (Özden, 2002)

The on-line course is planned by the instructor, Prof. Dr. M. Yaşar Özden, considering the “Üniversitelerarası İletişim ve Bilgi Teknolojilerine Dayalı Uzaktan Yükseköğretim Yönetmeliği” (<http://www.ii.metu.edu.tr/EMK/univers.htm>) According to the information, given on the related pages, the criteria (<http://www.ii.metu.edu.tr/EMK/ilkeler.htm>) the on-line program (tutorial) on WEB generally should contain:

- Introduction page
- Lecture page
- Chat Forum pages

- Grading page
- Homework page
- Frequently asks questions page
- Links page
- Information page (related with web based instruction) (Özden, 2002)

Besides these criteria, while doing the visual design of the on-line course, instructor thought that the learners are adults so colors and the overall design of the on-line course also address to adult learners.

By keeping all these issues in mind, the on-line course was developed. (Figure1) is the main page of “CSIT444-On-line Web Design” on-line course.

From the main page it is understood that most of the criteria had improved by the instructor and most of the situations in the questions in the questionnaire “Instructor Evaluation for On-line Course” (see Appendix A) had satisfied by the instructor.

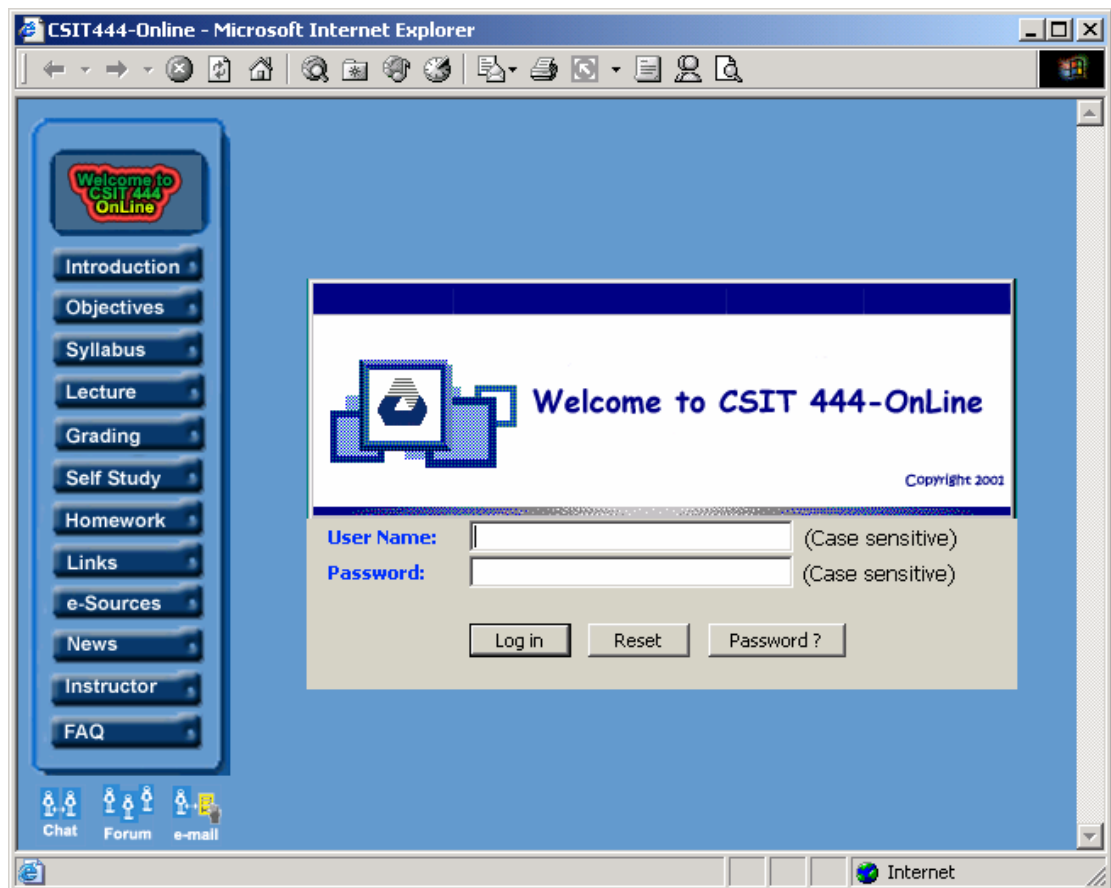


Figure 3.1: Main Page for “CSIT444-On-line Web Design” Course

Figure 3.1 shows the main page (index page) of the on-line course. Students can access the pages throughout navigation buttons but first of all, they must have an ID number to access the pages. There are “Introduction, Objectives, Syllabus, Lecture, Grading, Self Study, Homework, Links, e-Sources, News, Instructor and FAQ” pages under the buttons on the left and in addition to these there are “Chat, Forum and e-mail “ links under buttons on the page.

3.6 Data Collection Procedures

Data from the subjects were collected as follows:

The questionnaire “Instructor Evaluation for On-line Course” (see Appendix A) was prepared to survey learners’ perspectives about administration, facilitation, technical an evaluation criteria of the instructor.

“CSIT444-On-line Web Design” on-line course was given Distance Education Institute in Eastern Mediterranean University, fall semester in 2001/2002. There were 98 students registered the course. The students were divided into four groups in the course period all of the semester and the groups participated chat session on Thursday and Friday. Collaboration and on-line discussion among students and instructor were held on. Students carried out weekly topic discussions based on the course readings and which were summarized and posted by the instructor at the end of each topic. And also promoted high levels of on-line interaction. During the chat session, the properties of MS-Netmeeting ,WhiteBoard, and File Sharing are used because the course is mostly applicable. (Özden, 2002)

Collaboration consisted of topic discussions in small groups of five to six students, as well as group assignments that were submitted to the instructor. The students and the instructor, moderated group discussion and group submissions and participation made up a part of the students' final grade. All the group discussions are inscribed in the semester. Collaboration was built into the course in the ongoing

discussions about course topics and projects required for the course. The students were evaluated considering midterms, home works, projects and how many hours they used the site of the course. (Özden, 2002)

At the end of the semester the questionnaire with 21 items one of which is open-ended “Instructor Evaluation for On-line Course” is submitted to those students who attended the “CSIT444-On-line Web Design” on-line course from Distance Education Institute of Eastern Mediterranean University, fall semester in 2001/2002. The participants were all informed about the importance of the questionnaire. In order to avoid invalid and unreliable responses, the time allocated for completion of the questionnaire was kept long.

3.7 Data Analysis

Statistical Analysis

The information obtained was analyzed One-Way Multivariate Analysis of Variance (MANOVA) which was performed to analyze the effects of administration, facilitation, technical and evaluation characteristics of the on-line instructor on gender, grades and # of messages of learners. The analysis examined if there was any relationship between independent variables and dependent variables.

Qualitative Analysis

According to an idea, the data analysis consisted of three simultaneous activities: data reduction, data display and conclusion drawing. (Miles and Huberman, 1994) Another idea about the process of coding the data for qualitative analysis is as follows:

Coding: individual comments are coded due to the research questions

Ordering and Displaying: information is collected, patterns and themes are determined. Data are displayed when ready

Conclusion drawing: Conclusions are drawn according to the data gathered and they are written up.

Verifying: By reviewing the original data, conclusions are verified. (Herrington and Oliver, 2000; p.34)

As a result, conclusions were drawn in order to move from particular to more general conclusion.

3.8 Assumptions for the Study

For this study, the following assumptions are made:

- 1- All the participants responded correctly to all the instruments used in the study to find out the on-line instructor.

- 2- The data gathered were analyzed thoroughly to get valid results.
- 3- Validity and reliability of all the measures used in the study correct enough to make assumptions.

3.9 Limitations of the Study

Limitations for this study as follows:

- 1- Only one on-line course in a semester is considered.
- 2- The number of participants is limited.
- 3- Validity is limited to the reliability of the instruments for data gathering
- 4- Validity depends upon the accuracy or attention given or paid to the questions when responding
- 5- As the on-line course is prepared to run on the internet, some devices were not efficient to run some programs like chat and e-mail for they require different servers, ASP or PHP should be set up to the server machine, an ID number is needed and for the chat server, the machine is needed under Windows 2000 server, WEB Server, Exchange 2000 Enterprise Server, Exchange 2000 Communication Server, Site Server ILS Services, Windows Media Services, Snitz Forums 2000 Version 3.1 Service Release 4 (<http://forum.snitz.com>) communication systems.
- 6- Since the course is on-line this study is limited to Internet connections.
- 7- The study is limited to learners who attended the “CSIT444-On-line Web Design” on-line course.

CHAPTER 4

RESULTS AND CONCLUSIONS

In this chapter, the results of the descriptive analysis are presented and conclusions are stated according to the results obtained. All the questions in the questionnaire are included in the tables.

4.1 Analysis of the Responses

The main purpose of this section was to obtain on-line learners' opinions about the on-line instructor in four areas, which are administration (4 questions), facilitation (8 questions), technical (2 questions), and evaluation (6 questions) by submitting a questionnaire to the learners. Besides, the purpose of the study was to find out what are the properties of on-line instructor and how an effective on-line instructor should be. There were 21 questions in questionnaire, one of the questions was open-ended and it is presented at the end of the questionnaire. The participants

are students (15 female, 30 male) who attended the “CSIT444-On-line Web Design” on-line course were all volunteered to take part in the study.

4.2 Statistical Analysis

The results of statistical analysis are presented in this section. The data obtained was analyzed One-Way Multivariate Analysis of Variance (MANOVA) which was performed to analyze the effects of gender, grades and # of messages of learners on administration, facilitation, technical and evaluation characteristics of the on-line instructor. The analysis examined if there was any relationship between independent variables and dependent variables.

This section deals with verification of one-way multivariate analysis of variance (MANOVA) assumptions, the statistical model of MANOVA, the follow-up analysis.

4.2.1 Assumptions of Multivariate Analysis of Variance

MANOVA has the assumptions of homogeneity of the variance-covariance, equality of variances, normality. All the variables were tested for all the assumptions.

For the homogeneity of the variance-covariance assumption, from Box’s Test of Equality of Covariance Matrices the observed covariance matrices of the DVs are equal across groups for gender. ($F(10,3733) = 3.420, p = .000$). From Box’s Test of

Equality of Covariance Matrices the observed covariance matrices of the DVs are equal across groups for grades. ($F(10,3067) = 1.002, p = .439$). From Box's Test of Equality of Covariance Matrices the observed covariance matrices of the DVs are equal across groups for messages. ($F(10,3733) = 3.420, p = .322$).

Levene's Test of Equality was used to determine the equality of variance assumption for gender. As Table 4.1 indicates, the error variances of the selected DVs across groups were equal. All the p values of DVs are $p > 0.05$ so it is not significant.

Table 4.1 Levene's Test of Equality of Error Variances for Gender

| | F | df1 | df2 | Sig. |
|-----------------------|----------|------------|------------|-------------|
| Administration | 1,200 | 1 | 43 | ,279 |
| Facilitation | ,002 | 1 | 43 | ,967 |
| Technical | 4,826 | 1 | 43 | ,033 |
| Evaluation | ,462 | 1 | 43 | ,500 |

Levene's Test of Equality was used to determine the equality of variance assumption for grades. As Table 4.2 indicates, the error variances of the selected DVs across groups were equal. All the p values of DVs are $p > 0.05$ so it is not significant.

Table 4.2 Levene's Test of Equality of Error Variances for Grades

| | F | df1 | df2 | Sig. |
|-----------------------|----------|------------|------------|-------------|
| Administration | ,082 | 1 | 43 | ,776 |
| Facilitation | 2,996 | 1 | 43 | ,091 |
| Technical | ,978 | 1 | 43 | ,328 |
| Evaluation | ,124 | 1 | 43 | ,726 |

Levene's Test of Equality was used to determine the equality of variance assumption for students' number of messages. As Table 4.3 indicates, the error variances of the selected DVs across groups were equal. All the p values of DVs are $p > 0.05$ so it is not significant.

Table 4.3 Levene's Test of Equality of Error Variances for Messages

| | F | df1 | df2 | Sig. |
|-----------------------|----------|------------|------------|-------------|
| Administration | ,054 | 1 | 43 | ,817 |
| Facilitation | ,058 | 1 | 43 | ,811 |
| Technical | ,040 | 1 | 43 | ,843 |
| Evaluation | ,027 | 1 | 43 | ,870 |

4.2.2 Multivariate Analysis of Variance Model

DVs of the study are ADMINISTRATION, FACILITATION, TEHNICAL and EVALUATION. The variable gender is variates of the study. Table 4.4 presents the results of MANOVA. As seen from the table, Wilk's Λ .926 is not significant ($F(4,40) = 0.792, p > .01$).

Table 4.4 MANOVA Test Results for Gender

| Effect | | Value | F | Error df | Sig. |
|------------------|-----------------------|--------------|----------|-----------------|-------------|
| Intercept | Pillai's Trace | ,997 | 3355,297 | 40,000 | ,000 |
| | Wilks' Lambda | ,003 | 3355,297 | 40,000 | ,000 |
| Gender | Pillai's Trace | ,074 | ,797 | 40,000 | ,534 |
| | Wilks' Lambda | ,926 | ,797 | 40,000 | ,534 |

Again the DVs of the study are the same, the variable grade is variates of the study. Table 4.5 presents the results of MANOVA. As seen from the table, Wilk's Λ .891 is not significant ($F(4,40) = 1.218, p > .01$).

Table 4.5 MANOVA Test Results for Grades

| Effect | | Value | F | Error df | Sig. |
|------------------|-----------------------|--------------|----------|-----------------|-------------|
| Intercept | Pillai's Trace | ,997 | 3330,710 | 40,000 | ,000 |
| | Wilks' Lambda | ,003 | 3330,710 | 40,000 | ,000 |
| Grades | Pillai's Trace | ,109 | 1,218 | 40,000 | ,318 |
| | Wilks' Lambda | ,891 | 1,218 | 40,000 | ,318 |

Again, the DVs of the study are the same; the variable students' number of messages is variates of the study. Table 4.6 presents the results of MANOVA. As seen from the table, Wilk's Λ .987 is not significant ($F(4,40) = 0.132, p > .01$).

Table 4.6 MANOVA Test Results for Messages

| Effect | | Value | F | Error df | Sig. |
|------------------|-----------------------|--------------|----------|-----------------|-------------|
| Intercept | Pillai's Trace | ,997 | 3212,237 | 40,000 | ,000 |
| | Wilks' Lambda | ,003 | 3212,237 | 40,000 | ,000 |
| Messages | Pillai's Trace | ,013 | ,132 | 40,000 | ,970 |
| | Wilks' Lambda | ,987 | ,132 | 40,000 | ,970 |

MANOVA was conducted to determine the effect of gender the instructor's competency in four areas. As seen from Table 4.7, ($F(1,43) = 0.847, p = .362$) for administration, ($F(1,43) = 0.652, p = .424$) for facilitation, ($F(1,43) = 1.946, p = .170$) for technical, ($F(1,43) = 0.157, p = .694$) for evaluation. No significant differences were found between DVs and independent variable. From the Eta Squared values it is concluded that Gender difference accounted for 1.9% of variation in administration, 1.5% of variation in facilitation, 4.3% of variation in technical, and 0.4% of variation in evaluation.

In order to test the effect of DVs of on each IV, an analysis of variance (ANOVA) was conducted as follow-up tests to the MANOVA. Table 4.7 indicates the result of the ANOVA.

Table 4.7 Test of Between-Subjects Effect for Gender

| Source | Dependent Variable | Type III Sum of Squares | df | Mean Square | F | Sig. | Eta Squared |
|------------------------|-----------------------|-------------------------|----|-------------|----------|------|-------------|
| Corrected Model | Administration | 1,000E-01 | 1 | 1,000E-01 | ,847 | ,362 | ,019 |
| | Facilitation | 7,656E-02 | 1 | 7,656E-02 | ,652 | ,424 | ,015 |
| | Technical | ,544 | 1 | ,544 | 1,946 | ,170 | ,043 |
| | Evaluation | 3,741E-02 | 1 | 3,741E-02 | ,157 | ,694 | ,004 |
| Intercept | Administration | 902,500 | 1 | 902,500 | 7646,798 | ,000 | ,994 |
| | Facilitation | 892,238 | 1 | 892,238 | 7599,623 | ,000 | ,994 |
| | Technical | 889,878 | 1 | 889,878 | 3179,896 | ,000 | ,987 |
| | Evaluation | 859,697 | 1 | 859,697 | 3605,790 | ,000 | ,988 |
| GENDER | Administration | 1,000E-01 | 1 | 1,000E-01 | ,847 | ,362 | ,019 |
| | Facilitation | 7,656E-02 | 1 | 7,656E-02 | ,652 | ,424 | ,015 |
| | Technical | ,544 | 1 | ,544 | 1,946 | ,170 | ,043 |
| | Evaluation | 3,741E-02 | 1 | 3,741E-02 | ,157 | ,694 | ,004 |
| Error | Administration | 5,075 | 43 | ,118 | | | |
| | Facilitation | 5,048 | 43 | ,117 | | | |
| | Technical | 12,033 | 43 | ,280 | | | |
| | Evaluation | 10,252 | 43 | ,238 | | | |
| Total | Administration | 1013,375 | 45 | | | | |
| | Facilitation | 1002,703 | 45 | | | | |
| | Technical | 997,250 | 45 | | | | |
| | Evaluation | 973,200 | 45 | | | | |
| Corrected Total | Administration | 5,175 | 44 | | | | |
| | Facilitation | 5,125 | 44 | | | | |
| | Technical | 12,578 | 44 | | | | |
| | Evaluation | 10,290 | 44 | | | | |

MANOVA was conducted to determine the effect of grades the instructor's competency in four areas. As seen from Table 4.8, ($F(1,43) = 0.412, p = .578$) for administration, ($F(1,43) = 3.452, p = .070$) for facilitation, ($F(1,43) = 0.800, p = .376$) for technical, ($F(1,43) = 0.528, p = .471$) for evaluation. No significant differences were found between DVs and independent variable.

From the Eta Squared values it is concluded that Grade difference accounted for 1.2% of variation in administration, 7.4% of variation in facilitation, 1.8% of variation in technical, and 1.2% of variation in evaluation.

In order to test the effect of DVs of on each IV, an analysis of variance (ANOVA) was conducted as follow-up tests to the MANOVA. Table 4.8 indicates the result of the ANOVA.

Table 4.8 Test of Between-Subjects Effect for Grades

| Source | Dependent Variable | Type III Sum of Squares | df | Mean Square | F | Sig. | Eta Squared |
|------------------------|-----------------------|-------------------------|----|-------------|----------|------|-------------|
| Corrected Model | Administration | 6,094E-02 | 1 | 6,094E-02 | ,512 | ,478 | ,012 |
| | Facilitation | ,381 | 1 | ,381 | 3,452 | ,070 | ,074 |
| | Technical | ,230 | 1 | ,230 | ,800 | ,376 | ,018 |
| | Evaluation | ,125 | 1 | ,125 | ,528 | ,471 | ,012 |
| Intercept | Administration | 858,839 | 1 | 858,839 | 7221,288 | ,000 | ,994 |
| | Facilitation | 841,625 | 1 | 841,625 | 7628,407 | ,000 | ,994 |
| | Technical | 833,652 | 1 | 833,652 | 2903,082 | ,000 | ,985 |
| | Evaluation | 817,835 | 1 | 817,835 | 3459,721 | ,000 | ,988 |
| GRADES | Administration | 6,094E-02 | 1 | 6,094E-02 | ,512 | ,478 | ,012 |
| | Facilitation | ,381 | 1 | ,381 | 3,452 | ,070 | ,074 |
| | Technical | ,230 | 1 | ,230 | ,800 | ,376 | ,018 |
| | Evaluation | ,125 | 1 | ,125 | ,528 | ,471 | ,012 |
| Error | Administration | 5,114 | 43 | ,119 | | | |
| | Facilitation | 4,744 | 43 | ,110 | | | |
| | Technical | 12,348 | 43 | ,287 | | | |
| | Evaluation | 10,165 | 43 | ,236 | | | |
| Total | Administration | 1013,375 | 45 | | | | |
| | Facilitation | 1002,703 | 45 | | | | |
| | Technical | 997,250 | 45 | | | | |
| | Evaluation | 973,200 | 45 | | | | |
| Corrected Total | Administration | 5,175 | 44 | | | | |
| | Facilitation | 5,125 | 44 | | | | |
| | Technical | 12,578 | 44 | | | | |
| | Evaluation | 10,290 | 44 | | | | |

MANOVA was conducted to determine the effect of # of messages the instructor's competency in four areas. As seen from Table 4.9, ($F(1,43) = 0.209$, $p = .650$) for administration, ($F(1,43) = 0.477$, $p = .493$) for facilitation, ($F(1,43) = 0.152$, $p = .698$) for technical, ($F(1,43) = 0.472$, $p = .496$) for evaluation. No significant differences were found between DVs and independent variable.

From the Eta Squared values it is concluded that number of message difference accounted for 0.5% of variation in administration, 1.1% of variation in facilitation, 0.4% of variation in technical, and 1.1% of variation in evaluation. In order to test the effect of DVs of on each IV, an analysis of variance (ANOVA) was conducted as follow-up tests to the MANOVA. Table 4.9 indicates the result of the ANOVA.

Table 4.9 Test of Between-Subjects Effect for Messages

| Source | Dependent Variable | Type III Sum of Squares | df | Mean Square | F | Sig. | Eta Squared |
|------------------------|-----------------------|-------------------------|----|-------------|----------|------|-------------|
| Corrected Model | Administration | 2,500E-02 | 1 | 2,500E-02 | ,209 | ,650 | ,005 |
| | Facilitation | 5,625E-02 | 1 | 5,625E-02 | ,477 | ,493 | ,011 |
| | Technical | 4,444E-02 | 1 | 4,444E-02 | ,152 | ,698 | ,004 |
| | Evaluation | ,112 | 1 | ,112 | ,472 | ,496 | ,011 |
| Intercept | Administration | 893,025 | 1 | 893,025 | 7456,325 | ,000 | ,994 |
| | Facilitation | 882,034 | 1 | 882,034 | 7482,607 | ,000 | ,994 |
| | Technical | 871,111 | 1 | 871,111 | 2988,652 | ,000 | ,986 |
| | Evaluation | 849,417 | 1 | 849,417 | 3588,648 | ,000 | ,988 |
| MESSAGE | Administration | 2,500E-02 | 1 | 2,500E-02 | ,209 | ,650 | ,005 |
| | Facilitation | 5,625E-02 | 1 | 5,625E-02 | ,477 | ,493 | ,011 |
| | Technical | 4,444E-02 | 1 | 4,444E-02 | ,152 | ,698 | ,004 |
| | Evaluation | ,112 | 1 | ,112 | ,472 | ,496 | ,011 |
| Error | Administration | 5,150 | 43 | ,120 | | | |
| | Facilitation | 5,069 | 43 | ,118 | | | |
| | Technical | 12,533 | 43 | ,291 | | | |
| | Evaluation | 10,178 | 43 | ,237 | | | |
| Total | Administration | 1013,375 | 45 | | | | |
| | Facilitation | 1002,703 | 45 | | | | |
| | Technical | 997,250 | 45 | | | | |
| | Evaluation | 973,200 | 45 | | | | |
| Corrected Total | Administration | 5,175 | 44 | | | | |
| | Facilitation | 5,125 | 44 | | | | |
| | Technical | 12,578 | 44 | | | | |
| | Evaluation | 10,290 | 44 | | | | |

4.3 Summary of Statistical Analysis

From the results of one-way multivariate analysis of variance (MANOVA) analysis, it is concluded that there is no statistically significant effect of instructor' competency of four areas which are DVs (administration, facilitation, technical and evaluation) on the population means when students' gender (between female and students), grade (low and high) and # of messages (low and high). This model statistically meaningful with $p < 0.05$ and all the p values are greater than 0.05.

For gender difference ($F(1,43) = 0.847, p = .362$) for administration, ($F(1,43) = 0.652, p = .424$) for facilitation, ($F(1,43) = 1.946, p = .170$) for technical, ($F(1,43) = 0.157, p = .694$) for evaluation. No significant differences were found between DVs and independent variable students' gender. The model accounted for 1.9% of variation in administration, 1.5% of variation in facilitation, 4.3% of variation in technical, and 0.4% of variation in evaluation.

For grade difference ($F(1,43) = 0.412, p = .578$) for administration, ($F(1,43) = 3.452, p = .070$) for facilitation, ($F(1,43) = 0.800, p = .376$) for technical, ($F(1,43) = 0.528, p = .471$) for evaluation. No significant differences were found between DVs and independent variable students' grades. The model accounted for 1.2% of variation in administration, 7.4% of variation in facilitation, 1.8% of variation in technical, and 1.2% of variation in evaluation.

For number of message difference ($F(1,43) = 0.209, p = .650$) for administration, ($F(1,43) = 0.477, p = .493$) for facilitation, ($F(1,43) = 0.152, p = .698$) for technical, ($F(1,43) = 0.472, p = .496$) for evaluation. No significant differences were found between DVs and independent variable number of messages. The model accounted for 0.5% of variation in administration, 1.1% of variation in facilitation, 0.4% of variation in technical, and 1.1% of variation in evaluation.

4.4 Qualitative Analysis

The results obtained from analysis of open-ended question were presented in this section.

4.4.1 Open-Ended Question's Results

In order to obtain the characteristics of the on-line instructor and evaluate the instructor and the course effectiveness, get feedback from learners' perspectives to make necessary improvements, the responses had been given to one general open-ended question. The respondents all willingly answered the question and stated their comments. The question was asked to seek learners' comments about the on-line instructor and on-line course and 17 students stated their opinions for this question. Others were not. There were 56 students and 17 students who are answered the open-ended question the questionnaire (30.6%) in the whole students.

The analysis of the responses indicated that the instructor and the course are generally beneficial for students to learn. For example, a respondent from the students said that “It was extremely powerful idea to teach a web designing course on-line. I never met these kinds of facilities especially from on-line courses everything was going perfect. I have learnt too much from the sources and help of teacher.” Another respondent from the students is that “ What can I say everything is perfect it’s very funny and useful lessons for us I think.”

The responses of the students were generally the same, which means they like the course and the facilitative actions of the instructor. One student indicated that “ I like this course”. Another stated that “our teacher performs everything to help students”.

To illustrate, one student said that “thanks for giving that great course to us!” Another student stated that “sir as you see I didn't make any changes in this form because everything are perfect”. Another statement about the instructor is that “Actually it was my first experience to take any on-line course and what I have realized that our teacher has done the great job in teaching us how to face and react while you are having on-line course”.

There were also opposite statement about the instructor’s actions. For example, a student said that “Although teacher was not cooperative to solve problems, it was another plus point for students in order to create a professional web page themselves.” Another point of view was similar with the previous one: “I think

teacher is very good but he can not approach to the problems timely.” On the contrary, a student stated that “Everything is ok!!! I didn't meet any problem in web site and about teacher.”

Other opinions from students were related with the first group. On the other hand, one of the students indicated her/his opinion as follows: “Before this course I was completely pessimistic about on-line courses. But Dr.Yaşar's visions have completely that now. If an on-line course would be, then it should be like how Dr.Yaşar has devised this particular methodology. ” Another point of view was similar with the previous one: “At the beginning of the course I was very afraid of the on-line course and I was thinking of I will not be successful but then my opinion has changed and I enjoyed the course. Thank you for this great course.”

Almost all of the students were agreeing on the following point: “The instructor gives the course efficiently and the course is very different, enjoyable and also effective to use Internet tools. ” Lastly, one of the students stated that “ The instructor is successful when applying on-line course, he is an expert.” Students’ general viewpoints about the course instructor are very positive. They think that they learn the course well though this is the first experience for them because the teacher support and good quality of e-sources made the course funny and useful for the students, and provided a smooth and manageable instructional process for the teacher.

4.5 Summary for Analysis of Open-Ended Question

Responses clearly indicated that some participants had some anxiety about the on-line course at the beginning of the semester. After the semester begin, the students lost their anxiety about the course by helping their instructor. Their negative attitudes for the course and instructor have changed after the lessons started. The on-line course was new and interesting to them.

All of the students found the on-line course enjoyable and everything perfect. They also found the teacher very helpful so they learnt how to study from him. According to the responses, the teacher performed well and he did great job. Besides, he was friendly and his methods were admired. On the other hand, two of the students found the instructor who didn't solve the problems at that time.

The instructor was also defined, as he knows how to react in any situation. Therefore, the students admired the facilitative actions of the instructor. The methodology of the instructor was defined powerful. Furthermore, they liked the course form. Although this is the first on-line course for all, it is concluded that they were all satisfied from the on-line instructor and on-line course.

CHAPTER 5

DISCUSSIONS, IMPLICATIONS AND RECOMMENDATIONS

This study was carried out to investigate the properties of on-line learning instructor who gives an on-line course from learners' points of view and to find out the effects of administration, facilitation, technical knowledge and skills and evaluation characteristics of the on-line instructor on gender, grades and # of messages of learners by taking the results of the questionnaire submitted to the on-line learners into consideration.

5.1 Major Findings

Question 1: What is the perception of learners about the administration competency of the on-line instructor, and are there any effect of this characteristic on gender, grades and # of messages of learners?

From the result of one-way multivariate analysis of variance (MANOVA) analysis, it is concluded that there is no significant effect of instructor's competency of administration on the population means when students' gender (between female and male students), students' grades (low and high) and students' # of messages (low and high) because all the p values are greater than 0.05.

According to the results obtained from the means of 1st, 2nd, 3rd and 4th (4.88, 4.51, 4.75 and 4.77) questions from the questionnaire the administration characteristics of the instructor was found compatible. The learners all satisfied from the instructor administrative actions.

The findings in this part are also parallel with the comments of learners in open-ended question. There is no complaining about administration. Majority of the learners stated that they like the course and methods of the instructor are powerful.

Question 2: What is the perception of learners about the facilitation competency of the on-line instructor, and are there any effect of this characteristic on gender, grades and # of messages of learners?

From the result of one-way multivariate analysis of variance (MANOVA) analysis, it is concluded that there is no significant effect of instructor's competency of facilitation on the population means when students' gender (between female and

male students), students' grades (low and high) and students' # of messages (low and high) because all the p values are greater than 0.05.

Since facilitative actions is quite important in that it affects the learners directly and since the teaching methods that are used in traditional classroom environments generally support student involvement and interaction with fellow students and the teacher which are aimed at on-line learning, the result of the questions from five to twelve gave us a good deal of information about the facilitation competency of the instructor.

The means of the questions are (4.66, 4.66, 4.80, 4.64, 4.77, 4.75, 4.62 and 4.73) from the questionnaire the administration characteristics of the instructor were found compatible. The learners all satisfied from the instructor facilitative actions.

The findings in this part are also parallel with the comments of learners in open-ended question. There are many comments about the instructor's facilitation. The more students are motivated to on-line course, the more their learning is empowered. And the instructor who arises students' interests' supports motivation, and this is supportive for students. Therefore, according to the findings, the instructor was found to be helpful and motivating and students enjoyed the course.

Question 3: What is the perception of learners about the technical knowledge and skills of the on-line instructor, and are there any effect of this characteristic on gender, grades and # of messages of learners?

The result of one-way multivariate analysis of variance (MANOVA) analysis, it is concluded that there is no significant effect of instructor's technical knowledge and skills on the population means when students' gender (between female and male students), students' grades (low and high) and students' # of messages (low and high) because all the p values are greater than 0.05.

From the results of the analysis of means of the 13th and 14th questions (4.68, 4.66) majority of the learners found the course material quite effective with the pages, chat rooms and forums.

According to learners' comments for the open-ended question, since the course is computer-based which was enriched by different pages, forums, chat rooms, e-sources, etc. that makes it visually attractive, students will have fun when they study with other students and instructor or on their own and makes learning of more effective.

Question 4: What is the perception of learners about the evaluation competency of the on-line instructor, and are there any effect of this characteristic on gender, grades and # of messages of learners?

From the result of one-way multivariate analysis of variance (MANOVA) analysis, it is concluded that there is no significant effect of instructor's competency of evaluation on the population means when students' gender (between female and

male students), students' grades (low and high) and students' # of messages (low and high) because all the p values are greater than 0.05.

According to the results obtained from the means of 15th, 16th, 17th, 18th, 19th and 20th (4.71, 4.66, 4.62, 4.71, 4.33 and 4.71) questions from the questionnaire the evaluation characteristics of the instructor were found compatible. The learners all satisfied from the instructor evaluative actions.

Regarding the responses of majority of the teachers, the program was found rich enough in terms of presentation of the content, navigation buttons, revision and exchange of information and interaction.

To conclude, the instructor was found effective by almost all the learners in four areas; administration, facilitation, technical and evaluation. Majority of the responses verified that the instructor is very effective with these properties, if the instructor solved the problems at that time there will be no complain in the future and he will be the one.

Main Research Question: What are learners' perceptions of a qualified e-learning instructor?

The on-line learners demonstrated that the on-line instructor satisfied the on-line course though he was not solving the problems timely. The course page was designed to provide self-study and interaction. According to the responses of the

learners, since the course is web based that is empowered by forums, chat rooms, forums, enjoyable pages, e-sources and entertainment, it was attracted learners' attention and they had fun from learning when they are learning on their own or with others.

Besides, learners praised the system was used, instructor's guidance in on-line course and instructor's communication, technical knowledge and skills, interaction with students and facilitative actions to get immediate feedback and check their progress in the chat session and after they do the assignments. They had also chance to revise the content and study it when they needed from e-sources and useful links. All agreed that at the beginning of semester the instructor set the clear grading criteria and remind the students about the assignments. In addition, the learners admired instructor's methods and performance.

Finally, the instructor was found powerful, friendly, helpful, performs well, effective, attractive and expert in general.

5.2 Discussions

Whether delivering learning using a traditional, synchronous, asynchronous, or blended approach, participants need to feel as though they have developed a personal rapport with the instructor. This seems even truer for on-line environments. The on-line instructor acts as an anchor, reassuring participants that support, reinforcement, and assessment is readily available.

The role of the instructor in an on-line environment is still evolving, but it's clear that on-line instructors are taking on more of a facilitative role than that of their lecture-oriented traditional classroom counterparts. The more the instructor gets involved, the more involved the participant is likely to be. (Hofmann, 2003)

Student expectations of the instructor's role in facilitating communication can vary according to the mode of communication. In their case study, Powers & Mitchell (1997) found a distinct difference between the instructor's role in asynchronous communication and synchronous communication. In the asynchronous bulletin board discussion, of the approximately 400 email messages that were not "directly related to course assignments, the instructor generated less than one quarter of [the] messages". During the scheduled chat sessions, in which communication more closely resembles a face-to-face discussion, students expected the instructor to take control of the discussion. Although this finding is from only one study, it speaks to students' expectations of their instructor, to guide and focus the class discussion when it occurs in a 'real-time' mode.

Communication in web-based distance education is primarily text-based without the modifying influence of non-verbal cues found in a face-to-face classroom. Instructors need to be able to write facilitate good communication by writing clear, focused messages, asking regularly for feedback to acknowledge the message was understood and to use a high level of redundant messages (Meyen et al., 1997). Instructors can use the asynchronous nature of e-mails and bulletin boards

to help students with difficult concepts, a benefit of not limiting instructor-student interaction to class time. (Schwartz, 1998). However, miscommunications are slower to be resolved in asynchronous interactions than in synchronous and face-to-face contexts. Instructors also need to make their expectations regarding communication explicit to reduce students' confusion about their role in the course. (Brown, 1998)

In this chapter, the results of the questionnaire were discussed, the general research question was explained, some theoretical implications were stated and recommendations for the further study were indicated.

5.3 Conclusion

The findings of the questionnaire show that what made the instructor qualified were all the facilitative, administrative, evaluative actions and technical knowledge and skills, which also motivate the students. Although, students were anxious about on-line course, the instructor's actions satisfied that they felt relaxed and they learned well. Besides, all the activities made the course more motivating.

In this study, the effects of the instructor on student's gender, grades and number of messages were examined. According to the results obtained from the questionnaire, there is no significant effect of the instructor actions on the learners.

The findings also show us that students have chance to interact with the teacher and their friends and they can have immediate feedback. From the interaction they learn from instructor and others, source books etc. “Except for the chat periods which were arranged to be convenient to all participants, join in discussions on each topic of study, and learn from every participant not just the instructor” (Duber, 2001).

Students could work at their own pace and teachers help them learn the course. In addition, students could learn with their own learning styles. . I think it gives a much richer environment for students to work in, and offers lots of different ways of learning for students, whether they prefer to discuss things more or simply to read and answer questions. It adapts to different learning styles. (Duber, 2001). Participating in an on-line course is much more convenient than attending a traditional course. Participants can log on to the Internet at their own convenience.

The findings also demonstrate that discussion forums in on-line education are usually intended both to support learning and teaching, and to foster a sense of on-line community. (Mazzolini, 2003) Discussions in the forums generally suggest that it is important that instructors play an active, visible part in forum discussions. For example, Palo and Pratt (1999), state that instructors participate as ‘cheerleaders’, attempting to motivate deeper learning through on-line discussions than would usually occur in a face-to-face classroom situation. It is also recognized that instructor participation may be overdone: too much participation by the instructor

may reduce the amount of student–student interaction and create an unnecessary degree of reliance on the teacher (Palo & Pratt, 2001).

From the findings the followings were identified for the roles of the on-line instructor which are offering feedback, giving instructions, giving information, opinions/preferences/advice, questioning, summarizing student comment, referring to outside sources. Moreover the role of the instructor are coordinating assignments, coordinating discussion, coordinating course, empathy, interpersonal outreach, meta communication, and humor.

Besides, the other roles are technical user issues, system issue, technical issue is unclear (symptoms of problems are reported without a clear idea of the cause (i.e., user or system). (Teles et al., 2001)

Since file management makes it possible for the instructor to intervene in a timely way if, for instance, a student is not participating or is having trouble with part of the unit. Regardless of the means, instructors need to devise a method of organizing and responding to messages without spending all of their time engaged in and tracking the communications within the course. Technical competency for instructors is more than knowing how to run software; it also includes a willingness to be innovative in using different technologies and combinations of technologies (Alley, 1996; Meyen et al., 1997).

From the findings, time is also required to integrate different teaching and

learning styles, particularly collaborative, learner centered learning styles that are proposed by several authors as the styles that make the best use of web-based instructional technology. (Alley, 1996; Meyen et al., 1997; Brown, 1998).

The findings also demonstrate that interaction with students in a web-based course context is an important element which can demand more time and attention from an instructor than in a face-to-face classroom. Interaction with students usually takes more of the instructor's time in web-based courses; Brown (1998) estimates about 40% to 50% more interaction time than in face-to-face classrooms. (p. 2). If a web-based course design includes communication through bulletin boards or listserves and scheduled real-time conferencing, the instructor may be inundated with messages. In web-based courses, students "demand more feedback; and the more feedback they receive, the more interaction they want" (Brown, 1998). The boundaries of when interactions can occur are not centered on class time, nor is the student inhibited by the dynamics of the classroom from contributing to a discussion or asking a question. Student expectations of the instructor can be high, especially if the instructor has publicly committed to a maximum response time, such as within a 24-hour period. Students who are comfortable with communicating on-line can develop a "type of intimacy" in their communications with instructors, which rarely manifests in face-to-face classrooms. (Brown, 1998, p. 3).

Exploring instructor roles and instructional activities in this course gave us a window into the amount of time instructor organizes his/her classroom. Several limitations of this research will require additional work in this area. First of all, analysis does not capture any difference between female or male students, low grade

or high-grade students, and low or high # of messages which were posted from students of the on-line classroom. (Teles et al., 2001)

In this study, in order to obtain the characteristics of the on-line instructor an on-line “CSIT444-On-line Web Design” course examined in terms of its instructor’s activities affects on the students’ attitudes. Nobody withdrew the on-line course after registration. It means that the course was reached the goal because generally the on-line courses were withdrawn approximately 50-60%. On-line students studied with groups and they construct 18 projects.

(<http://csit.emu.edu.tr/csit444on-line2001/finalprojects/finalproject.asp>)

The students used the on-line course site 1057.4 hours for learning throughout the semester. The average hour for one student is 11.1 hours. In the traditional learning 14 weeks x 2 hours minimum = 28 hours. The learning time is very small when we compare to the traditional learning, they used the site 11.1 hours just looking at the computer screen and learning continually. The students asked 1617 question in the forum and these question and answers red 12437 times. They sent 211 e-mail and visited the site to talk to each other in chat 849 times during the semester. (<http://csit.emu.edu.tr/csit444on-line2001/siteusage/siteusage.asp>)

The students who are submitted to a questionnaire stated that chat and forum were effective tools for collaborative learning (75% strongly agree, 80% agree), and they stated that the on-line course is very effective.

5.4 Recommendations for Practice

One of the most important findings of the study is that on-line instructor was found effective all areas of action especially facilitation. Besides, the students found the instructor quite effective and powerful. His performance and guidance were found competent. The participants of this study were learners of the on-line course who were occasionally familiar with the importance of the use of technology in the field of education. They found the instructor's performance well and the system was useful. Therefore, majority of the learners found the course and the instructor efficient and liked the course in a general sense.

This study contributes to a better understanding of how the on-line instructors should be from the viewpoints of learners. Although on-line instructor and on-line courses are new concepts for Turkey, the instructor were admired many characteristics and the course was found enjoyable and effective.

It was also concluded that the negative statements of the learners who were found the instructor inadequate while solving problems timely throughout the semester this is considered. For case studies, in order to get more reliable answers and get feedback for the situation, it is very difficult. Besides, the learners' perspectives may be biased. But, in the educational era, technology opens new dimensions every time and, teachers are responsible for following these changes and must manage the learning. Therefore, both instructors and students are responsible for the changes and the success.

5.5 Recommendations for Further Research

The following are some suggestions offered for increasing the success of an on-line course in on-line learning environment to the on-line instructor:

- 1- This is an on-line course so the learners must have Internet connections and powerful computers. However considering that there may be users of less powerful computers, the instructor should be careful about the use of some programs and remind his/her students for they not be available in order to follow the courses by the students.
- 2- In order to get students' perspectives toward the course the questionnaire should be improved and the number of the questions should be increased. The open-ended question number should be increased and categorized.
- 3- Two questionnaires, one at the beginning of the semester and one at the end of the semester can be submitted to get learners' perspectives toward the on-line instructor and course in order to get valid and reliable feedback.
- 4- In order to obtain more valid and reliable data, the questionnaire should be submitted to different on-line learner groups. Properties of the instructor may be an effect on the learners.

REFERENCES

AcaStat Software , (2002) “Research Methods Handbook” AcaStat Software. All rights Reserved. <http://www.acastat.com>

Achtemeier, S. D. et al. (February 2003) “Considerations for Developing Evaluations of Online Courses” *Journal of Asynchronous Learning Networks* Volume 7, Issue 1 http://www.aln.org/publications/jaln/v7n1/v7n1_achtemeier.asp

Appel, C.; Mullen, T. (2000) “Pedagogical Considerations for a Web-based Tandem Language Learning Environment” *Computers & Education*. Vol.34 pp: 291-308

Barab, S. A.; Hay, K. E.; Duffy, T. M. (March, 1998) “Grounded Constructions and How Technology can Help” *Tech Trends for Leaders in Education and Training: The Magazine of the Association for Educational Communications and Technology* Vol.43 No: 2 pp: 15-23

Bates, T. (1984) “The Growth of Technology in Distance Education” in A. W. Bates (Ed.) *The Role of Technology in Distance Education* (3-7) USA: St. Martin’s Press, Inc.

Broadbent, B.; Cotter, C. (2003) “Evaluating e-learning” Pfeiffer Annual: Training The Institute for Higher Education Policy, Quality on the Line: Benchmarks for Success in Internet-Based Distance Education http://www.e-learninghub.com/articles/evaluating_e-learning.html

Broadbent, B. (September, 2002) "E-learning, Present and Future", Ottawa Distance Learning Group.
http://www.e-learninghub.com/docs/ODLG_2002.pdf

Broadbent, B.; Legassie, R. (2003) "How to facilitate e-learning courses" Training Sourcebook edited by Mel Silberman
http://www.e-learninghub.com/articles/how_to_facilitate_e-learning.html

Broadbent, B. (2002) "Implementing e-learning" the Pfeiffer Annual
http://www.e-learninghub.com/articles/implementing_e-learning.html

Brown, F. B. & Brown, Y. (1994) "Distance Education Around the World" in Barry Willis (Ed.) *Distance Education: Strategies and Tools* (10-29) USA: Educational Technology Publications

Carman, J. (September - October 2000) "Next-Generation e-Learning: Integrated Collaborative, Interactive and Reference Technologies" Volume 8, No 5
http://www.traininguniversity.com/tu_pi2000so_7.php

Cotton, E. G. (1997) "The Online Classroom, Teaching with the Internet" in 2nd (Ed.) ERIC Clearinghouse on Reading English, and Communication New Jersey: EDINFO Press

Descy, D. E. (March, 1998) "All Aboard the Internet" *Tech Trends for Leaders in Education and Training: The Magazine of the Association for Educational Communications and Technology* Vol. 43 No: 2 pp: 4-7

"Distance Education: Why Distance Learning" (October, 2000) Internet WWW page at URL:<http://www.fae.plym.ac.uk/tele/resources.html>

Duber, J. (2001) "Interview with an Online Instructor. Teaching English as a Second or Foreign Language" Jduber.com

Economou, D. et al. (2000) "Requirements Elicitation for Virtual Actors in Collaborative Learning Environment" *Computers & Education*. Vol.34 pp: 225-239

"E-learning " Internet WWW page at URL:
<http://www.learnativity.com/elearning.html#def>

"E-learning " Internet WWW page at URL:
http://meidling.vhs.at/links_elearning.htm

Frank, M. et al. (2003) "Respecting the Human Needs of Students in the Development of E-learning" *Computers & Education*. Vol.40 pp: 57-70

Hammond, M.; Mortimer L. (December 2001) "The Devil is in the Details: Converting Classroom Courses to E-Learning" Published:
<http://www.learningcircuits.org/2001/dec2001/elearn.html>

Hammond, M. (2000) "Communication within, On-line Forums: The Opportunities, the Constraints and the Value of a Communicative Approach" *Computers & Education*. Vol.35 pp: 251-262

Herrington, J., & Oliver, R. (1995). "Critical characteristics of situated learning: Implications for the instructional design of multimedia." In J. Pearce & A. Ellis (Eds.), *Learning with technology* (pp. 235-262). Parkville, Vic: University of Melbourne.

Herrington, J. & Oliver, R. (2000) "An Instructional Design Framework for Authentic Learning Environments" *Educational Technology Research and Development* Vol: 48 No:3 pp: 23-48

Hofmann J. (August 18, 2003) "Motivating Online Participants" Published:
<http://www.learningcircuits.org/2003/aug2003/hofmann.htm>

Hofmann J. (July 7, 2003) "Building Success for E-Learners"
<http://www.learningcircuits.org/2003/jul2003/hofmann.htm>

Ingram, A. L. et al. (2000) "Beyond Chat on the Internet" *Computers & Education*.
Vol.35 pp: 21-35

Jossey-Bass and ASTD, (May 2002) "ABCs of e-Learning: Reaping the Benefits and
Avoiding the Pitfalls", 256 page book
http://www.e-learninghub.com/docs/Risks_rewards.pdf

Kwok, R. C. W.; Ma, J. (1999) "Use of a Group Support System for Collaborative
Assessment" *Computers & Education*. Vol.32 pp: 109-125

Land, Susan (2000) "Cognitive Requirements for Learning with Open-Ended
Learning Environments" *Educational Technology Research and Development* Vol.
48, No: 3 pp: 61-78

Lee, Fong-Lok; Liang, S.; Chan, Tak-Wai (1999) "An Attempt to Design
Synchronous Collaborative Learning Environments for Peer Dyads on the World-
Wide Web" *Journal of Educational Computing Research* Vol. 21(2) pp: 221-253

Locatis, C. & Weisberg, M. (1997) "Distributed Learning and the Internet"
Contemporary Education: Interactive and Distance Education (100-3) Vol: LXVIII
No: 2 School of Education, Indiana State University

Lynch, M. M. (2002) "The online educator: a guide to creating the virtual classroom"
Book review *Internet and Higher Education* Vol.6 pp: 97-99

Mayberry, E. (June 2002) "From E-Learning Failure to E-Learning Redemption"
<http://www.learningcircuits.com/2002/jun2002/mayberry.html>

Markwood, R. A. (1996) "Computer Tools in Distance Education" in Barry Willis (Ed.) *Distance Education: Strategies and Tools* New Jersey: Education Technology Publications

Mazzolini, M.; Maddison, S. (2003) "Sage, guide or ghost? The effect of instructor intervention on student participation in online discussion forums" *Computers & Education* Vol.40 pp: 237-253
www.elsevier.com/locate/compedu

Miller, S. M.; Miller, K. L. (1999) "Using Instructional Theory to Facilitate Communication in Web-Based Courses" *Educational Technology and Society* 2(3) pp: 1-11

Minium, E. W.; Clarke, R. B. (1982) "Elements of Statistical Reasoning" Canada: John Wiley & Sons Inc.

Moore, M. & Kearsley, G. (1996) *Distance Education: A Systems View* USA: Wadsworth Publishing Company

Moore, M. G.; Cozine, G. T. (August 2000) "Web-Based Communications, the Internet, and Distance Education" Released
<http://www.ed.psu.edu/acsde/readings/annRead7abstracts.asp#top>

Mortimer, L. (December, 2001) "The Devil is in the Detail: Converting Classroom Courses to E-Learning" *The ASTD's Online Magazine All About E-Learning*. Vol.43

Özden, M. Yaşar "Öğretici Tabanlı Öğrenmeden İnternet Tabanlı Çoklu Ortam Oluşturmacı Yaklaşım Uygulamalarına Geçiş: Bir Durum Çalışması" BTIE 2002 *Symposium Papers* (44-45)

Papanikolaou, K. A. et al. (2002) "Towards New Forms of Knowledge Communication : The Adaptive Dimension of a Web-based Learning Environment" *Computers & Education*. Vol.39 pp: 333-360

Pearson, J. (1999) "Electronic Networking in Initial Teacher Education: Is a Virtual Faculty of Education Possible?" *Computers & Education*. Vol.32 pp: 221-283

Peck, Kyle L. (March, 1998) "Toward Meaningful Technology Standards for Educators and Students" *Tech Trends for Leaders in Education and Training: The Magazine of the Association for Educational Communications and Technology* Vol. 43, No:2 pp: 47-53

Rosset, A. (2002) "The ASTD E-Learning Handbook" New York: McGraw-Hill Press

Sach, D.; Hale, N. (July 2003) "Pace University's Focus on Student Satisfaction with Student Services in Online Education" *Journal of Asynchronous Learning Networks*. Vol.7

Samuel, B. G.; Salkind, N. J.; Akey, T. M. (2000) "Using SPSS for Windows" New Jersey: Prentice-Hall Inc.

Sharples, M. (2000) "The Design of Personal Mobile Technologies for Lifelong Learning" *Computers & Education*. Vol.34 pp: 177-193

Sheremetov, L.; Arenas, A. G. (2002) "EVA: An Interactive Web-based Collaborative Learning Environment" *Computers & Education*. Vol.39 pp: 161-182

Shroder, R. (July 2003) "Blonging Online Learning News on Research" *Journal of Asynchronous Learning Networks*. Vol.7

Skolnik, M.L.(1998) “Higher Education in the 21st Century” Vol. 30, No. 7, pp. 635–650, Pergamon , Elsevier Science Ltd.

Smeaton, A. L.; Keogh, G. (1999) “An Analysis of the Use of Virtual Delivery of Undergraduate Lectures” *Computers & Education*. Vol.32 pp: 83-94

Smith, C. D. et al. (1999) “Using Email for Teaching” *Computers & Education*. Vol.33 pp: 15-25

Taylor, P. C. S.; Dawson, V.M.; Geelon, D.R.; Stapleton, A.; Fox, B.; Herrmann, A.; Parker, L. (1999) “Virtual Teaching or Virtually Teaching: Does Internet-Based Teaching Require Multiple Metaphors of Mind?” In K. Martin, N. Stanley and N. Davison (Eds.) *Teaching in the Disciplines/Learning in Context* pp: 429-432 Proceedings of the 8th Annual Teaching Learning Forum, The University of Western Australia Perth: UWA Internet WWW Page at URL:
<http://cleo.murdoch.edu.au/asu/pubs/tlf/tlf99/t2/taylor-p.html>

Teles, L.; Ashton, S.; Roberts, T.; Tzoneva, I (May/June, 2001) “E-Learning Collaborative Env -Environments ronments The Role of the I Instructor instructor” *TechKnowLogia*, Knowledge Enterprise, Inc. www.TechKnowLogia.org

Varvel, V. et al. (July 2003) “The Illinois Online Network Is Making The Virtual Classroom A Reality: Study of An Exemplary Faculty Development Program” *Journal of Asynchronous Learning Networks*. Vol.7

Waller, V.(October 2000) “Managed Learning Environments – Putting together the pieces (Published in Inside Learning Technologies – www.elearningnetwork.org

Yaşar, Ş. (1996) “Utilizing Computer Mediated Distance Education Technologies for In-service Teacher Training in Turkey” *Türkiye First Distance Education Symposium Papers* (669-771) Ankara: FRTEB

APPENDIX A

Instructor Evaluation for Online Instructor

Administrative

1. Does the teacher return e-mail/posts within 24 hours? (Does the instructor have an e-mail policy?)
2. Does the instructor refer student problems to advisors and follow up to assure resolution?
3. Does the teacher post timely bulletins about changes and update the course?
4. Does the teacher post the syllabus, course materials, discussion topics at the beginning of the course?

Facilitation

5. Can the teacher cope all the questions raised by the students and respond in time?
6. Does the teacher manage and guide student interaction and discussion?
7. Does the teacher moderate discussion, model and desired methods of communication?
8. Does the teacher foster group learning?
9. Are minimum 10% of the discussion postings from the instructor?
10. Does the teacher provide public and private acknowledgment to students who contribute to discussion?
11. Does the teacher privately ask the noncontributing students to participate in discussion by e-mail or phone?
12. Does the teacher engage students, foster sharing of participants' knowledge, question, and expertise?

Technical

13. Is the teacher proficient with all the systems used in the course?
14. Does the teacher help students troubleshoot technical systems used in the course and refer to appropriate help sources, as needed?

Evaluation

15. Does the teacher provide students with clear grading criteria?
16. Does the teacher remind the students of the upcoming assignments?
17. Does the teacher provide written examples of assignments/projects?
18. Does the teacher provide resource ideas for completing assignments?
19. Does the teacher assist students who are having problems with completing the assignments?
20. Does the teacher acknowledge the receipt of assignments within 24 hours?

SA =Strongly Agree, A = Agree, N = Neutral, DA = Disagree, SDA = Strongly Disagree

"Instructor Evaluation Form"

Please answer by clicking the most accurate answer on each item. After finishing the form, Please, do not forget to submit your form. Thank you very much for assistance in this proces.

| | | SA | A | N | DA | SDA |
|----|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1 | Does the teacher return e-mails/posts within 24 hours? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 2 | Does the instructor follows up student problems and try to find out solution? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 3 | Does the teacher post timely bulletins about changes and updates to course? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 4 | Does the teacher post the syllabus, course materials, discussion topics at the beginning of the course? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 5 | Can the teacher cope all the questions raised by the students and respond in time? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 6 | Does the teacher manage and guide student interaction and discussion? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 7 | Does the teacher moderate discussion, models desired methods of communication? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 8 | Does the teacher foster group learning? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 9 | Are minimum 10% of the discussion postings from the instructor? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 10 | Does the teacher provide public and private acknowledgment to students who contribute to discussion? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 11 | Does the teacher contact the students privately or by e-mail to ask noncontributing students to participate in discussion? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 12 | Does the teacher engages students, fosters sharing of participants' knowledge, questions, and expertise? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 13 | Is the teacher proficient with all the systems used in the course? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 14 | Does the teacher help students troubleshoot technical systems used in the course and refers to appropriate help sources, as needed? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 15 | Does the teacher provide students with clear | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

| | | | | | | |
|--|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | grading criteria? | | | | | |
| 16 | Does the teacher remind the students of the upcoming assignments? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 17 | Does the teacher provide written examples of assignments/projects? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 18 | Does the teacher provide resource ideas for completing assignments? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 19 | Does the teacher assists students who are having problem completing the assignments? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 20 | Does the teacher acknowledge the receipt of assignments within 24 hours? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <p>Please Type Your Additional Comments on Instructor, in the Following Box.</p> | | | | | | |
| <div style="border: 1px solid gray; padding: 5px;"> <p>Tell us your opinion(s)/comment(s) about the instructor in 100 words or less.</p> <div style="border: 1px solid gray; height: 40px; width: 100%;"></div> </div> | | | | | | |