Dimensions of E-Learning Education in Turkey

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Key words: E-learning, distance education, internet, success.

SUMMARY

Today developments of communication technology are going on pretty quick and also supplying the share of information importantly. The use of information is an inherent part of education. Internet has a vital role from this point of view. It provides a facility to support flexible delivery for teaching and learning. A lot of universities and institutes are using e-learning education together or instead of traditional education (face to face) in the world. The world-wide-web is increasingly being used as a resource in learning and teaching of students in higher university. But it depends on level and rate of using PC and internet. In this paper, weaknesses and strengths of this education model will be emphasized and put out the dimensions of e-learning in Turkey as a developing country.

1. INTRODUCTION

Specific works are being realized to make maximum use of the developments in the field of education as in every field trying to harmonize the rapidly improving technological developments. Being effective in the world of continuous changing and development, requires earning the ability of continuous learning and development and using of modern, flexible, effective education methods. The educator must have an approach how to make personal development, teaching and improvement of the students, possible. In order to reach the results conformable with the aim of the education, to determine the methodology to be used is being important. The student must earn the ability (the fact) of time management together with the education. This will lighten his load and make him closer to the success [1], [7].

The worries of creating equal opportunity in education and providing suitable education conditions for individuals hunger for learning but could not find the opportunities of secondary or higher education because of economic, physical or insufficient time reasons, has been the basic problem of the educators throughout the years [12]. Solving of these problems has created a search for technological supported new education models. E-learning education can be defined as an alternative education technique presented by electronic technology like computer, telephone and television. This definition nowadays means the education presented through the internet and appear in front of us as a new education form presenting a chain of very big opportunities [9], [13].

2. WHAT KIND OF AN EDUCATION?

New communication technologies are means of correspondence providing and improving the mutual interaction both between the users and information, by their microprocessors. The applications of education technology faced in education literature nowadays have made mass communication and computer technology in education a vital part of the education processes. That is why; new applications and models are put on the agenda against the classic education.

Especially computer based new education models, instead of or addition to the education carried out mostly by auditorial model and done depended on an educator and time in the class until now, are formed. New technologies are required for the application of these models [12]. Table 1 shows old and new education models and required technologies for these.

Table 1. Changing Education Models and Technological Needs [12].

OLD MODEL	NEW MODEL	TECHNOLOGICAL NEEDS
Lessons in class	Personal research	PC's in network
Passive assimilation	Apprenticeship	Improvement of the abilities and simulations are required
Lonely work	Team learning	Making use of means of common work and e-mail
Teacher who knows everything	The guide teacher	Based on reaching the specialists at network environment
Invariable content	Quickly variable content	Requires networks and means of broadcast
Homogeneity	Variation	Requires various methods and means of attainment

The most important specialty of new education models is to remove the concept of class, make the society educational environment and have similar specialties in all educational establishments (school, universities, and education units of the enterprise). For example schools, universities and companies are facing with budget pressures and searching the ways of increasing of the income of education to the investment. Either schools or companies use similar technologies to overcome similar problems. But works show that the technology itself is not the sole solution. For the success first the teachers must be trained, lesson programs and education models must change [2], [12]. However, it is not possible to realize the modern education concepts without computers. Modern education considers the computers as electronic advisors. Namely, there is only one user of a computer having hundreds of internal specialists, instead of an advisor talking to a lot of people in his room [12].

E- learning education is individual (student) centered. The important point of the applications of e-learning is; the education reaches the individual who will take the

education by means of technology, while the individuals who will take the education are expected to reach the educators in classic education. Not only e-learning education can be taken by following on one's own; but also includes mutual interaction; for example in imaginary class applications the participants (although they are in different physical environments) they can meet at a virtual class and take education together. The educator may ask the class questions and the participants may answer through the computer screen [8], [13].

In order to provide the permanency of the knowledge learned, all of the auditorial, visual and kinesthetic models must be used. On the other hand, the audio is used by telling about a subject, the kinesthetic is used partly by the voice tone of the educator but the visual is used very little. Education must aim to rise the permanency of learning 90 % by using visual [6], [11]. Researches show that listening is more difficult than speaking. Because the hearing organ is the most working one among five sense organs [3]. Learning will increase if we join our five senses. It is being much easier to realize this, in e-education.

Table 2. The Communication-Learning Capacity of the Individuals [11].

ENVIRONMENT	RECORDING SPEED TO THE TEMPORARY MEMORY	RECORDING SPEED TO THE PERMANENT MEMORY
Audio	640.000 b/s	2 b/s
Kinesthetic (Sense of touch)	13.000.000 b/s	40 b/s
Visual	1.000.000.000 b/s	3.125 b/s
Conscious Following	7.000.000.000 b/s	21.843 b/s
Interactive Communication	880.000.000.000 b/s	2.750.000 b/s

Absence of the motivation and the warmth of the classic (face-to-face) education can be considered a disadvantage in e-learning. But the most important advantages are taking the education at desired place and time; giving the student the opportunity to study the subject due to his learning capacity; avoiding the increase of the costs. The individual, without feeling a pressure on him, can decide how long does he want to study at once, can decide his rest intervals and review what he has learned before. This helps the obtained knowledge to be applied to the daily life rapidly. By the help of the presented alternatives, the individual learning opportunity is provided and the quality of the education is increased. Due to the interactive environment, the interaction between the participants of the education is increased and sharing of the knowledge and accumulation is provided accordingly. Reviewing the correctness and suitability of the education material continuously and making the necessary changes within a short time, make it possible to take a flexible, easily followable and success aimed education [2], [6], [8], [13].

3. FRAMEWORK OF E-LEARNING EDUCATION (IN TURKEY)

The developments in the field of communication make the borderline between the education and self-culturation indistinct (which was very clear previously). On the other hand these developments require individuals equipped with thinking skills and behaviors. That is why they change and increase the demand to the education systems and present new possibilities for the education systems [12].

3.1 At Which Part of the Education is Internet?

Today, the Internet can provide a cost effective, reliable and virtual communication system through existing and emerging global networks. Now educational institutions and universities are using the web to support teaching and training and to offer education to distant students. This educational approach is based primarily on the use of distance education techniques (WEB-based, teletraining, computer-based modules). The major advantage of the virtual training mission is that they conduct the training in a cost-effective manner by carefully monitoring resources and reducing available human resources. The internet has opened up a new educational culture with sharing 'libraries' located throughout the world and accessible through the worldwide web. It has revolutionized the learning process and enabled us to reach out to a new student base. The internet has many unique advantages such as no time constraint, variety in courses, interactivity, a wealth of information, less bandwidth, and thematic case studies [4].

The internet use has changed tremendously in Turkey since 1990. The popularity of the Internet has been widely seen in the media, which may be due to the current demographics of Turkey (32% of the population is made up of 10- to 24-year-olds) (Statistics Institute of the Government of Turkey 2001). The total online population of Internet users in Turkey has reached 4.5 million by the beginning of 2001 [4].

Today, nearly all Turkish universities have their own web sites and this gives them the incredible opportunity to catch up to more developed countries. The internet has given the researcher and the student direct, under-the-fingertips access to the total sum of knowledge in the world. It must not be forgotten that the potential of the www is 24-hour access to documents. Many web sites have been designed to provide educators with the necessary tools and information to explore the world of education. Turkish universities put some course materials (abstracts, literature, homework, etc.) on-line. They gather considerable technological and pedagogical experiences in providing distance education and from offering targeted supplementary educational courses [4].

The main purpose of distance education models is to reach the target of giving education to hundred thousands of people. These models can be realized by reaching the condition of connecting to the internet and making all individuals having computers.

3.2 The Contribution of Distance Education and the Situation in Turkey

The contribution of the new communication technologies to the education process and to succeed as a distance education model is very important. The information society of the future will be constructed within a brand-new frame, which will be formed by computer-communication technology [12].

Table 3. Distance Education Technologies [12].

PRODUCTION	PRESENTATION	COMMUNICATION
Written	E-mail	E-mail
Auditorial	Radio	Telephone (one by one or conference)
Video	Publication	Video Conference
Computer	Cable publication	Computer / modem (electronic mail, computer supported conference, courses with www, electronic bulletin panel)
	Computer / Modem	
	Limited publication (narrowcast-satellite, fibre, microvawe)	
	Visual and auditorial graphs (recorder, cassettes, video-recorder, CD-ROM, video-disc)	

Turkey made a partial start to distance education with the Anatolian University open education system in 1982. More than 2 million students are being educated in open education primary school, open education high school and Anatolian University open education faculty in the education year of 2004-2005 in Turkey. The main reasons why the students being educated with open education system prefer open education are working at a job, keeping up military services, having old age for education, being arrested which prevent them to attend classic education. Besides these, the housewives who want to accomplish their education, the ones having a profession but willing to be educated in a second branch, the ones living abroad, are the ones who prefer open education. Open education is one of the important ways to provide equal opportunity in education. Anatolia University open education system, which started in 1982 with 29.000 students, among top 10 mega universities in the world, with registered 930.000 students. Basic education materials in open education are textbooks which are prepared with distance education techniques and suitable for self-learning. Hundreds of textbooks which are prepared with the contribution of more than thousand writers and editors from a lot of universities, are published approximately five or six millions and attained to the students. TV programs prepared parallel to the unit lessons are aimed to support and strengthen the students' self-learning effectiveness. With this purpose, more than 1000 television programs, average 20 minutes long, are produced every year and broadcasted in TRT, state TV channel [5].

Open education faculty has recently increased the environments directed towards e-learning for registered students. In the education year 1999-2000, the faculty started e-learning

services by trial exams (e-test) based on internet, and included exercise software (e-exercise) based on internet in the education year 2002-2003. Then, in the education year of 2003-2004, it is started to broadcast textbooks and television programs in internet environment (e-book and e-television). The students can reach these services free of charge just by using their citizenship numbers. Success differences, frequency of the services received among the students whether taking e-learning education or not, are determined according to their age and sex, and given in table 4 and table 5 [5].

Table 4. Average Success of the Open Education Students According to the Frequency of the E-learning Service They Receive [5].

FREQUENCY OF E-LEARNING SERVICE THEY RECEIVE	AVERAGE SUCCESS (Grade)
0	37,87
1	43,48
2-3	44,80
4-5	46,36
6-9	47,30
10-17	48,92
18-44	50,59
45+	53,44
Total	47,25

Table 5. Average Success of the Students Receiving or Not Receiving E-learning Service According to Their Sex and Age [5].

AVERAGE SUCCESS (Grade)		SEX	
E-LEARNING	**AGE**	**Male**	**Female**
Not Receiving E-learning Service	26-30	49,09	45,50
	31-35	47,83	45,97
	36-40	45,20	41,57
	41-45	41,73	36,10
	45 +	38,61	34,82
Receiving E-learning Service	26-30	54,88	56,81
	31-35	53,36	53,53
	36-40	51,43	51,48
	41-45	49,78	48,62
	45 +	49,72	54,79

Besides open education, in some universities giving classic education, both national inter-universities and international common works, and education works are supported by using technology as visual conference system and by establishing remote education centers.

4. E-LEARNING EDUCATION IN THE FUTURE OF TURKEY

As it is understood, new developments in computer technology are able to realize radical changes in education process, which is hunger for all kinds of reforms and technological developments. In other words new technologies produce very suitable solution possibilities for chronic problems of the education systems. Transferring of the advantages brought by especially new communication technologies in the field of education to daily life is being a catalyst, which accelerates the increase of the socialization and conscious levels of the individuals. Besides using of the means of communication like postal services (education by mail, letter), telephone, radio, television, video for the purpose of education in the historical development process, nowadays such applications like interactive video, teleconference, view-data are met as a considerable truth in the education sector [12].

One of the most important handicaps in front of generalization of e-education in Turkey is, the computers having suitable hardware and software for the proposed system cannot be provided with suitable economic conditions. In other words, whether computers and internet service fees must be cheapened or the ones interested in the education system could be able to use economically [12]. (The lowest speed internet connection in the Europe is at the level of 3 Mb average, according to data of 2005. In 15 countries having the most speed internet users average fee per 100 Kb is USD 2.22, which is USD 14.06 in Turkey that 7 times higher fee) [10]. Besides insufficiency of other computer equipments (printer, camera, scanner, fax-modem etc.) per computer and the mentality of the people assuming the computer as a writing machine and the general ignorance on this subject must be removed rapidly. Although the existence of some troubles and obstacles faced in this process, the target of equal opportunity in education, and the effort of raising the level of general culture and conscious must be considered as an enterprise which must be appreciated and supported.

The first and the most important step in the passing process to the new education model is to start the application of the model after solving the infrastructure problems like equipment, software, internet web. Considering the developments in the world, following the efforts of realization of the new ideas and enterprises in the field of education closely, is being extremely important, in respect of the education system in Turkey and earning of this system international equivalence [12].

5. CONCLUSION AND SUGGESTIONS

Forming a society of information brings together, the needs of interrogating the mentality of classic education and proposing alternative education systems. The technology, which has motive power in the information society, is basicly computer technology. Computer technology is a technology, which increases the mental power of human and ready to take his place, in some fields. Its necessity and importance in education is clear. The most important factor which already causes the 21st century as an information era is; being "the knowledge and education" to form the source of more than 50% of the personal national incomes of especially developed western countries and a well educated manpower and working at the jobs related with information. So, the relation between the information society and the education emphasizes the importance of the subject. The signs that the concepts "internet universities" or "imaginary classes" appeared with the generalization of new communication technologies forming the infrastructure of information society will make important transformations in the mentality of classic education are seen at the examples on the world, since last 10 years [12]. Besides it is thought that the accomplishing of the infrastructure of national internet web and generalization of internet using will speed up the mentioned formations in Turkey.

It is known that the learning has no longer a relation with attending the school. According to the researches, considering the final average success grades, the successes of the students of open education faculty using e-learning services are higher than the ones who do not use these services. It is also determined that the frequency of using e-learning services has a direct influence on success, in proportion with its usage [5].

It is being important that the education must play a strategic and practical role make permanent learning possible within a continuously developing structure. How to problems will be solved in the education process, planning the strategies, using the knowledge and developing ideas are the basic factors expected from the education [1]. Considering the uses of e-learning like place and time flexibility, possibility of reviewing the lesson, dropping of learning time, lower cost and standardized education, and removing the social and economic handicaps with a rational planning, it is understood that the drop of the quality of the education system in Turkey can be prevented.

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BIOGRAPHICAL NOTES

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