Performance of Distant Education System in Turkey

Deniz Guney

Yildiz Technical University, Faculty of Architecture, Department of Structure Istanbul-Turkey
deguney@yildiz.edu.tr

Abstract: Developing communication technologies have an important power and effect on the field of education in Turkey. These electronic technologies have been increasingly used in education and training for many years. Distance education is one of the newest forms of education that basically depends on these communication and information technologies. As a new and modern approach to deliver instruction, many corporations and organizations for both formal and non-formal educational settings in Turkey and all around the world have increasingly used distance education. This paper investigates the performance of the Distant Education System, explains how the Distant Education Faculty performs and transforms education in Turkey.

Key words: Distant, education, performance, Turkey.

Introduction

Distance education programs worldwide use a variety of technologies that include print materials, audio and videocassettes, audio and video teleconferencing, one-way and two way television, computer-mediated communication (e.g., electronic mail, computer conferencing), and more recently, the Internet. Technologies that deliver instruction to distance learners are often classified as two-way interactive or one-way non-interactive (Bates, A. W., 1995). Two-way interactive technologies can be listed as audio conferencing, audio graphic conferencing, bulletin board system, and computer conferencing via e-mail, computer conferencing via conferencing software, desktop videoconferencing, and internet based desktop videoconferencing, internet-based synchronous text conference, one-way videoconference with response keypads, two-way videoconference and voice mail. Similarly, one-way technologies can be listed as audiotape, CD-ROM, computer-based training (CBT) - computer disk, internet-based gopher, telnet, ftp, laserdisc, one-way videoconference, e.g., satellite, printed materials, radio, television, videotape, virtual reality and Web-based interactive multimedia, e.g., Java scripts, World Wide Web. Turkey has used the European model for its economic, political and educational development while maintaining its cultural ties with the East. Many Turkish art forms; shadow theater, music, dance and literature have their roots in Asia. Similar to its Asian neighbors, Turkey, with a large population of over 70 million people, is a developing country. Institutions of higher education in Turkey have traditionally modeled their programs after their British, German and American counterparts. However the educational problems facing Turkey more closely resemble those of their Asian than their European neighbors (McIsaac, M.S., et al, 1988). Distance Education has been actually applied in Turkey since 1982. When the past of distance education is examined, though it can go back to 50-60 years ago, it seems it appeared in 1970s, closer to its meaning of today. The distance education issue first expressed in 1927 at a meeting where the education problems were discussed and it was discussed that distance education could be used to make the people literate (Alkan, C., 1987).

Turkish Education System

A.General View: Turkish education system is ruled by the Ministry of National Education. Ministry of National Education consists of central, provincial, overseas organizations and affiliated establishments. According to the Basic Law of National Education no 1739, The Turkish Education System consists of two main divisions:

a. Formal Education

Formal Education, in other words school system, is divided into four levels:

- Pre-school Education (0-72 mounts)
- Primary Education (Primary Education, which is free at all state schools, is for the education of children between the ages of 6 and 14, and it is compulsory for all.)
- Secondary Education (Secondary Education covers general high schools, and vocational and technical high schools which provide at least three-year education for the graduates of primary education.)
- Tertiary Education (The aims of these schools are to bring up students as individuals who are acquainted with the problems of the society and who contribute to economic, social and cultural development of the country and to prepare them for tertiary education as well)

b. Non-formal Education (Non-formal education aims to teach adults how to read and write, to provide basic knowledge, to develop further knowledge and skills already acquired and to create new opportunities for improving their standard of living.)

In addition to this, based on qualifying exam, students can continue higher education system (two years/pre-undergrad, min. four years undergrad). Higher education system can be seen in Figure 1. General numbers belongs to Turkish education system is given in Table 1.

Table 1: Number of Schools, Students, Number of Teachers

Levels of Education	Number of Schools/Institution	Number of Student			Number of Teachers
		Total	Boys	Girls	
Pre-School Education	**3.600**	**701.762**	**366.209**	**335.553**	**10.819**
Primary Education	**34.093**	**10.870.570**	**5.676.872**	**5.193.698**	**445.452**
Secondary Education	**8.280**	**3.245.322**	**1.789.238**	**1.456.084**	**191.041**
General Secondary Education	3.830	1.980.452	1.044.607	935.845	106.270
Vocational and Technical Secondary Education	4.450	1.264.870	744.631	520.239	84.771
Non-Formal Education	**11.864**	**5.117.623**	**2.942.086**	**2.175.537**	**87.285**
Higher Education	**114**	**2.497.473**	**1.411.485**	**1.085.988**	**96.105**
Total	**57.951**	**22.432.750**	**12.185.890**	**10.246.860**	**830.702**

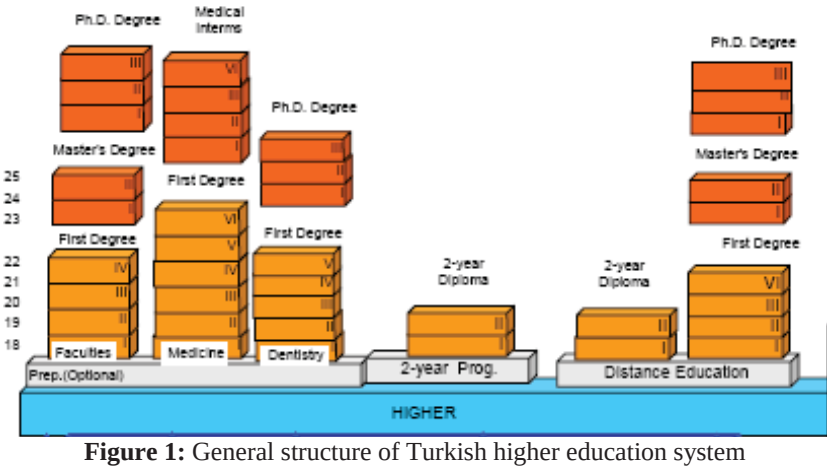

Figure 1: General structure of Turkish higher education system

Higher education institutions are autonomous for purpose of teaching and research. Higher Education institutions includes faculties, institutes, faculties, institutes of technology, higher education schools, conservatories, higher vocational education schools, and application and research centers. However, they have to submit annual reports to Higher Education Council which is responsible for the planning and coordination of higher education. Higher Education covers all post-secondary programs with duration of at least two years. The total number of universities is about 160 (according to 2012 data). The schooling rate in higher education is about 38.6%. Almost 1.2 million students take university entrance exam in every year. However 100.000 of them (state and private university) can enter classic university departments. The rest of the students should search an alternative education method for higher education. That's why distant education tools are one of the best alternatives for higher education. In addition to this distant education can be used for each stage of education system.

B. Distant Education in Turkey: Distant education is provided to ensure equal opportunities for all Turkish citizens, to support the primary, secondary and higher education system and to render lifelong learning opportunities.

The distant education system was initiated in Turkey in 1974. At primary and secondary education level s distance education is provided through Open Primary School, Open High School, Open Vocational and Technical High School while at tertiary level through open universities. In addition Vocational certificate programs are offered for all though Open Vocational and Technical School on condition that they are at least primary school graduates. In the 2004/2005 academic year, a total of 1 342 375 students received education through distance education, 581 516 in open primary and secondary schools and 760 859 in open higher education.

Open Education in Turkey

The first and the most successful example of distant education in Turkey is Anadolu University. It is very successful example and mile stone for Turkish education system. Eskişehir Anadolu University has been providing open higher education services since 1982. The Open Education Faculty began training with Economics and Business Administration curricula. The Economics and Business Administration Departments of the Open Education Faculty were reorganized as Faculty of Economics and Faculty of Business Management in the year of 1993. The Open Education Faculty is also extending services to faculties of Economics and Business Management through its Turkey-wide distributed offices as well as the training and education services extended by the faculty itself. This service is also available for Turkish citizens living in foreign countries. The total number of students registered to Open Higher Education was 760 859 for the academic year 2003/2004. The student numbers of the Open Education Faculty, Faculty of Economics and Faculty of Business Management are 289 659, 213 835 and 257 365 respectively. The details can be seen in Table 2.

Table 2: Number Of Students In Distance Education (2004/2005)

EDUCATIONAL LEVEL	**TOTAL**	**BOYS**	**GIRLS**
OPEN PRIMARY EDUCATION	266.742	147.117	119.626
OPEN EDUCATION HIGH SCHOOL	314.773	185.302	129.471
General Programs	252.030	149.873	102.157
Vocational and Technical Programs	62.743	35429	2.7314
Industrial Vocational H.Sc.	26.845	23.928	2.917
Girls' Vocational H. Sc.	16.378	292	16.086
Trade Vocational H. Sc.	12.583	7.229	5.354
Imam and Preachers H Sc.	6.397	3.980	2.597
OPEN HIGHER EDUCATION	695.591	387.413	308.178
TOTAL	1.277.107	719.832	557.275

Today, its Open Education System not only serves students in Turkey but Turkish communities in the European Union and Northern Cyprus. It has one of the world's largest student bodies. It currently has 24,300 on-

campus students and almost 1,050,000 off-campus students enrolled in the Open Education System. Over 2000 of these are taking graduate programs. The 336,000 distance students who enrolled in 2005/06 constitute over 40% of all university students and 99% of all distance education students in Turkey. By the end of the 2004/05 academic year, 870,000 pre-bachelor and bachelor degree students had graduated through the Open Education System, and at the end of 2006 a further 110,000 graduates are expected. The average Anadolu University distance learning student is in his/her mid-twenties; 65% of the students are metropolitan-based, 70% have jobs, 40% are married, 42% are female and 1.5% has some disability. Anadolu University comprises 12 faculties, three of which—Open Education, Business Administration and Economics—constitute the Open Education System, 10 vocational schools, 6 graduate schools, 26 research centers and a State Conservatory of Music and Drama. It has 1811 full-time teaching staff.

Open Education Faculty Performance

The OEF offers academic, technical and administrative support for the Open Education System through its various centers and units. The Distance Education Design Unit provides the instructional design for the 4.2 million copies of the 400 self-directed learning textbooks plus many test booklets and other course materials that are needed annually and that are co-developed by more than 750 writers and editors from Anadolu and other universities. The Printing Unit designs and produces the textbooks using the latest computer technology and dispatches these to the OEF centers in Turkey, the European Union and Northern Cyprus for student collection upon registering. They are also increasingly made available as web-based PDF files (e-books). The Television Centre produces or revises some 300 20-minute television programs annually. Most of the 5000 banked programs are studio-based and 'talking head', but there are also dramatizations, documentaries and computer animations. Throughout the year, these programmers are aired nationwide six hours a day on weekdays and three hours a day at weekends on the Turkish Radio and Television Corporation's Channel 4 (TRT4). Prior to the mid-term and final examinations, these pre-recorded programs are replaced with week-long live interactive programs with toll-free telephone, fax and email access to help the students in Turkey prepare for their examinations. Over 1100 programs are also available as streaming video over the Internet and students may purchase videocassettes or VCD/DVDs at minimal cost. Copies are free for students in the European Union unable to receive TRT4.

The Centre also operates a 384-kbs videoconferencing system for teaching within Turkey and Northern Cyprus, and produces hundreds of radio programs and a large number of audiobooks for the visually impaired, employing professional actors to read aloud the texts and self-tests. The Computer-Based Learning Centre collaborates with subject experts in developing the multimedia courseware for CD-Rom or Internet distribution. It employs 12 servers with 34 processors, using 100-Mbit bandwidth on the National Academic Network (ULAK-NET) developed by the Scientific and Technological Research Institution of Turkey (TÜBITAK) with the support of Turk Telekom (TT) (used mainly by students with computer access in public agencies or other universities) and 200-Mbit bandwidth on TT-NET (for other students accessing the multimedia materials). Although there are critics of the system, with so many students the OEF has found no alternative but to use multiple-choice tests and computerized assessment and evaluation. The tests are developed at the Test Research Centre by teams of teachers; the question books and optically readable answer sheets are dispatched under strictest security to the examination centers and, on their return, the Computing Centre assesses the answer sheets while the Test Research Centre monitors the appropriateness and effectiveness of both the instruction and the questions. The Open Education System is fairly generously funded, with 76% of its income coming from the student fees and 24% from the state. In 1996, Daniel estimated that the Open Education System cost the government 2% of the higher education budget (Daniel, J. S., 1996). Today, the state contribution per Open Education System student is 5% of that of a student at a conventional university. Bayrak and Kesim (2005) estimate that further investment in e-learning will yield further cost benefits (Bayrak, C., Kesim E, 2005). For most of the courses, the annual tuition fee is about US$250. Repeating students pay around US$200. Courses involving practical work cost slightly more. The annual fees for the Information Management and English Language Teaching programs are about US$1000 and US$600, respectively; the total for the e-MBA is US$12,600, and the other online graduate programs cost US$5,000.

E-Transformation

Like all distance teaching institutions in emerging economies, Anadolu University must balance technological benefits against equitable provision. e-Transformation can improve the infrastructure, provide richer and more interactive programs and enhance learner support. But recent findings (DPT, 2006) show that only 13.9% of the Turkish population can access the Internet, and only two per cent can access broadband. Only 5.9% own computers with an Internet connection. The majority access the Internet at work (41.1%) or at Internet cafes (41.2%). Internet access is primarily in the urban and advantaged regions and 62% of the populations still have no understanding of the Internet. The main reasons for the low adoption rates are the high cost of an Internet connection and a lack of basic Internet/computer skills. For those on the average monthly income of US$300–500, US$20 a month for a 512-kpbs digital subscriber line (ADSL) or US$10 for 15 hours of dial-up is prohibitively costly. But, interestingly, students constitute the largest group (53.8%) using the Internet. Turkey ranked 45th in the Economist Intelligence Unit's 2006 e-readiness rankings. However, the imperatives of the knowledge economy, globalization, candidacy for the European Union and Turkey's inclusion in the European Council's e-Europe Program Action Plan have led the government to initiate the Turkish e-transformation better, faster and more participative and transparent Information and Communications Technology public services. Universities, research organizations, libraries and documentation centers are linked through the high-speed ULAK-NET, and the rapid expansion of the Internet has led to student demand for online programs and services. In 1999 The Council of Higher Education legislated for Turkish universities to move into e-learning. The Computer-Based Learning Centre had already been developing courseware for use in conjunction with the print materials, and Anadolu University responded readily to this opportunity. The original intention was to install computer laboratories in all of the OEF centers but this proved to be too problematic and costly so the OEF is now setting its sights on supporting home ownership of computers, enhancing Internet connection and working with Turkish Telecom to increase the bandwidth and provide access for those in rural and underdeveloped regions of the country. Deploying WiMax technology is part of this project. The pursuit of these goals is seen as important because it is shown that, regardless of region, age or gender, Open Education System students making regular and sustained use of e-learning perform better than those who do not make use of the technology (Mutlu, M. E., 2004). However, it is still the case that many students lack the requisite computing and self-study skills, quiet, private environments for learning, and confidence to use computers for their learning, that server and bandwidth problems occur during peak hours, and that many faculties are still unfamiliar with technology-based teaching and learning. So there are many issues to be addressed as well as the cell phone, PDA and other m-learning options.

Strategic Planning and Management

Anadolu University and the OEF realize that they have reached a stage where they need to re-examine trends, needs, obligations and their strengths, advantages and opportunities, re-define their strategic goals and priorities, re-align their management and quality assurance procedures and resources accordingly, and mainstream those innovations that are shown to be working well. They also need to guard against becoming over-extended and/or failing to achieve impact and leverage in politically and educationally significant areas. The Higher Education Council (HEC) has suggested that Anadolu University should increase the range of courses and offer programs in technical fields, science and medicine. At the same time, the Turkish branches of large international firms are asking the OEF to provide nationwide online training for their employees. In August 2006, Ford established an e-learning portal to train its service personnel using materials designed and produced by the OEF. Anadolu University also needs to consider the threats posed by international and for profit online providers and the other socio-economic, political and technological changes that undoubtedly lie ahead for the country. Yılmaz (2005) suggests that universities with an e-transformation mission need to market themselves as providing easily accessed, well-designed, learner-centered, affordable, efficient and flexible services, sound return-on-investment, greater learner satisfaction and higher retention (Yılmaz, R. A., 2005). Özkul (2005) observes that achieving this at Anadolu University will require significant changes in structures and work practices, and Ulukan (2005) suggests that the requisite shifts in institutional values and staff attitudes and behaviors will require multiple points of inertia and resistance to be addressed systemically. Anadolu University's original positioning as the national center for distance learning in Turkey was attributable to the vision and leadership of its inaugural Rector in the 1970s and 1980s. The

new senior management team needs to exercise similar prescience and leadership and to encourage all faculties and staff to align their goals and activities to a new vision. The recent Higher Education Strategy for Turkey (Higher Education Council, 2006) stresses the need for just this form of review and envisioning. While at this stage the report is a draft open to comment, it flags some important issues. It observes that the higher education age group will decline but that the participation rate needs to be increased to match that of other OECD countries; that there is need for more postgraduate study and lifelong learning opportunities; that the university system needs to be more open and flexible; that management, quality assurance measures and resource efficiency need to be improved; and that there is a call for more student centered approaches, greater use of e-learning and increased research activity and international publication. It also suggests that while the participation rate should rise to 65% by 2025, the proportion studying through open learning should be progressively reduced from 35% to 11.2%, which it claims is the norm for developed countries. Anadolu University is already taking steps to respond to this changing environment. A Strategic Planning Task Force representative of the different departments of the university has been charged with developing a strategic plan by the end of the first quarter of 2007. In another major step development, a new Open and Distance Learning Research and Development Office (ARGE) has been established to undertake and commission qualitative and quantitative research studies that will help administrators and faculty improve their services and gain better national and international recognition of the university. On the developmental side, ARGE will encourage and support new forms of online programs, especially in the technical fields, using advanced technologies and more flexible and personalized learning systems. These e-certificate programs will be so designed as to remove the barriers to continuing professional development, including distance, time, qualifications and cost.

Conclusion

Turkish distance education already provides learner-content interaction through one-way technologies. By applying instructional strategies and interactive technologies that are inspired by cultural context, distance education can also enhance learner-instructor, and learner-learner interaction. Cultural context is a critical ingredient in the development of any distance education program. Because distance education reflects traditional face-to face education, distance education programs must be based on cultural context. In Turkey, patronage and an oral tradition are part of this cultural context. The instructional designer should select technologies that will encourage interaction and cooperation while supporting the cultural context.

As an important social and educational development the Open Education Faculty's significance lies not only in making University education available to adults who can only obtain it through study in their spare time, but also in the variety of teaching methods used. By the way of distance education in Turkey, students who failed to win places at conventional universities as well as those who for economic, geographic or other reasons could not study on university campuses found a chance to be educated. It was felt that distance education would not only benefit the students themselves but, in larger sense, would help to eliminate the student unrest and civil disobedience, which had marked the 1970's.

Anadolu University has successfully provided distance education for Turkish people in Turkey, across Europe and in Northern Cyprus since the early 1980s. The size, diversity and distribution of the student body and associated technological, logistical, legal and political issues present enormous challenges to the Open Education System. Anadolu is now improving its educational products and services through e-transformation and by employing new instructional models in its undergraduate, graduate and e-certificate programs. However, there are still many issues to consider; how to prepare the learners for self-managed, collaborative, technology-based learning; how to train faculty in the new technologies, methodologies and research practices; how to persuade politicians and administrators to write legislation and bills that will support open education; and how to improve the technological infrastructure and services. Senior and middle management and the recently established Strategic Planning Task Force are committed to finding ways of resolving these issues.

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