Distance Education Activities in Sakarya University for Associate, Undergraduate and Post-Graduate Degrees

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ABSTRACT

In Turkey, the application of distance education was first started in Law Faculty of Ankara University in 1958. As open learning program, distance education was started by Anadolu University in 1981. By time, other universities started their own distance education programs. As a consequence of the improvement of internet infrastructure in Turkey, a new distance education type, internet based distance education gained recognition by universities. Today, Sakarya University has a distance education background for granting both certificates and university degrees. The distance education activities is being performed by Distance Education Center in Sakarya University which provides technical support for programs and supplies the infrastructure for distance education system.

Nowadays, printed materials, broadcasting and visual tools are the most common instruments used in distance education. Students can access these materials both synchronously and asynchronously through internet.

Keywords: Distance Education, Associate Degree, Undergraduate Degree, Post-Graduate Degree, Learning Management System

1. INTRODUCTION

Geber's definition of distance education is "Any formal approach to learning in which the majority of the instruction occurs while educator and learner are at a distance from each other." [1].

Moore and Kearsley defines distance education as "Planned learning normally occurring in a different place from teaching and incorporating special techniques of course design, specialized instructional techniques, and special methods of communication." [2].

According to Dabbagh and Bannan-Ritland, "online learning is an open and distributed learning enviornment that uses pedagogical tools, enabled by Internet and web-based technologies, to facilitate learning and knowledge building through meaningful action and interaction." [3].

There was an advertisement on The Boston Gazette on March 20, 1728 declaring that steno lessons would be given by letter to whoever was interested. This announcement can be considered as the start of distance education [4].

There was another advertisement about composition lessons on a Swedish newspaper in 1833. In 1840, Isaac Pitman started stenography lessons via letter in England. 3 years later, in1843, in the lead of Pitman's shool of instruction with letters, The Phonographic Correspondence Society was founded and this society organized similar distance education activities [5].

Charles Toussaint and Gustav Langenscheidt formed and organized a school for teaching foreign languages by 19 correspondences in Germany in 1856. A few years later, Anna Eliot Ticknor started a society named Society to Encourage Study at Home in the United States. The Society enrolled more than 10,000 students who are mostly women, between the years 1873 and 1897 [5].

Distance education attempts started in Germany in 1856 and later, the distance education institutions Tele Colleg, Schulfersehn, Fern Universitat, Deutsch Institut Für Fernstudien were founded. The Open University in England gave lead to The Distance University of Hagen (FernUniversität Hagen) which was founded in Germany in 1974 and started instruction in academic year 1975/76 [6].

French National Distance Education Center (Centre National D'enseigment A Distance - CNED) started instruction in 1939. This center is an official institution bound to French Ministry of National Education and organizes distant education courses on fundamental instruction, occupational instruction and formation [7].

In Turkey Initial application was performed in academic year of 1958-59 by surveying Institution of Banking and Law of Commerce, bound to the Law Faculty in Ankara University. This Institute gave banking courses to individuals who were not in Ankara by using the technique of correspondence course during two-period [8].

The fifth and seventh item in the law of high education, counted 2547, published in official journal counted in 17506 and dated on November 6th, 1981, commissioned to universities to grant distance education and then this mission was given to Anadolu University by means of law, counted 41, made in 1982 [9].

In following years it is seen that not only Anadolu University but also other universities grant distance education. After the base of Internet was formed in 1993 in Turkey, a new dimension has been brought to distance education. Initially education based on Internet began with the leader of Middle East Technical University and the application of education asynchronies based on internet was developed with the aim of expanding the departments of informatics, founded in 1997 [10].

In 1999, Presidency of Turkish Higher Education Council published the Legislation of Distance Education Based on Inter-Universities Communication and Information Technologies and aimed to create new quotas for more students who desire to study in university [11].

The first internet based distance education application was started by Middle East Technical University. Bilkent University and Istanbul University were the first to grant distance education by teleconference system. A boardcasting system was established between Istanbul University and Harran University which let the vision of electronic board in Istanbul University to be transferred to Harran University in 2000.

According to matriculation guide of Turkey published in 2012, 35 universities were granted to instruct distance associate degree programs and 11 universities were granted to instruct distance undergraduate degree programs. The quota for associate degree programs was 8,561, and for undergraduate degree, it was 3,359.

Sakarya University first started to plan granting degrees in distance education in 1997 and after years of preparations, has started internet based distance education programs in academic year 2000/01. On July 2000, Distance Education Project started in Sakarya University.

Distance education platform in Sakarya University was built with the support of IBM-Lotus and the training about the platform was achieved by the instructors of Lotus-Italy. As the first step of this project, three web based courses were served to 94 students as a pilot application. These courses were Fundamentals of Information Technologies, Computer Aided Mechanical Drawing and Logic Circuits. After this pilot application being successful, in the spring semester of academic year 2001/02, four different web based courses were served to 1200 in-campus students in 10 different programs and 10 different classes. By this way, Turkey's most comprehensive web based education was performed. At the same period, by Informatics National Comittee bounded to Turkish Higher Education Council, Sakarya University were granted to teach 2 of 4 Server University courses and achieved the status of being a Server University. Server Universities have the authorization of teaching Server University courses to other universities' students on an internet-based platform.

Before the academic year 2002/03 started, Turkish Higher Education Council decided to start the first distance associate degree programs in Turkey. After this huge step, Sakarya University started two associate programs; Information Management and Computer Programming with a quota of 500 each. A new agreement was made with IBM and the new version of IBM's distance education platform Learningspace started to be used. The distance education activities in Sakarya University are being performed as internet based asynchronious instruction [12].

In this study, the distance education activities in Sakarya University were analyzed for each associate, undergraduate and post-graduate degree programs. Although these programs use the same portal essentially, there are some differences in application. Unlike other applications, in undergraduate degree programs, there's a system named co-education which combines traditional and distance educations. Consequently, the course activities, exams, assignments, projects, virtual classes and managing the portal for each academic degree programs were analyzed.

2. LITERATURE REVIEW

Synchronious Distance Education
In this type of distance education, students and lecturers communicate via chat, real time audio and teleconference. However, in some situations, for example if there are too many students, students may have problems in teleconference system due to technological issues [13].

Asynchronious Distance Education
In asynchronious distance education, students and lectures don't have to be on the same platform at the same time. This kind of education can be either completely independent of time and platform or dependent to time and platform in certain time periods [14].

Web-Based Distance Education
Khan defines web based education as an innovative approach for delivering instruction to a remote audience, using the web as a medium [15]. According to Khan's definition, the World Wide Web functions as an instruction delivery system.

Distance Education Institutions has to deliver instruction to a various kinds of students. The properties of students that affect this variety can be their age, employment status, educational status, for how long they suspended education, etc. Therefore, the instructors need to be meticulous while determining the instruction tools and meterials. Considering that students have different properties, it can be said tht alternative instruction tools might me necessary [16].

Television Broadcasts
Open television broadcasts offers a possibility to students to study at home. This system avoids the concerns of disabled people, old people, children and retired people [17].

Mail-Based Education

In this type of education, mail groups are formed by students to study with the help of experiences and skills shared by others. Mail-Based education does not provide audio and visual resources as in web-based education, but only a text-based interaction platform.

3. DISTANCE EDUCATION ACTIVITIES IN SAKARYA UNIVERSITY

By the academic year 2012/13, 14 post graduate degree programs, 8 undergraduate degree programs and 5 associate degree programs were being instructed with distance education in Sakarya University.

In the Institue of Social Sciences, Management, Public Administration, Local Government and Urban Development, Finance, History of Turkish Republic, Middle East Studies, Finance and Economics, Social Structure and Social Variance Analyses, International Relations and European Union, Information Management Systems and Turism Management programs, in the Institue of Natural Sciences, Information Tecnologies, Engineering Management and Quality Management programs, in the Institue of Educational Sciences, Curriculum and Instruction program are being delivered by distance education.

In Faculty of Engineering, Industrial Engineering and Computer Engineering, in Faculty of Economics and Administrative Sciences, Public Administration, Finance, Human Resource Management, Economics, Labour Economics and Industrial Relations and International Relations programs are being delivered with Co-Education (combination of the distance and conventional educations). Besides, in Faculty of Teology, Teology undergraduate completion program, for the students who has a teology associated degree, is being delivered with distance education.

By the academic year 2013/14, there are associate degree programs in Adapazari Vocational High School which are Information Management, Computer Programming, Internet and Network Technologies, Electronic Technologies, Mechatronics and Occupational Health and Safety.

In Sakarya University, students access the distance education materials via Sakarya University Learning Management System (SAULMS). They log in the system with the same ID number and password with the Sakarya University Student Information System – SABIS. On the LMS portal, students can access the videos, lecture notes and other resources of their courses weekly and download the permitted documents as well. The course materials in the LMS portal are accessible during each semester. This system allows the students to study asynchroniously regardless of time and location.

Associate Degree Programs

Distance education associate programs in Sakarya University are collected within Adapazari Vocational High School (Adapazari VHS) in which internet-based distance education system is being used. In this system, lecturers and students communicate with each other via various electronical platforms over the internet. Students download the course materials, studies by their selves and discuss the topics with other students and/or lecturer on the discussion board.

The difference between Open Learning System and Internet-Based Distance Education is that, students have the feeling of being a regular student as in-campus students since the electronic platforms keep track of attendance to the system. In Adapazari VHS, students have the opportunity to ask questions to lecturers via the discussion board, e-mail and chat, and receive personal help.

The main course contents are on the internet-based platform as booklet e-books in downloadable format.

While the quizzes and midterm exams are carried out via internet, the final exams are carried out in-campus. Students have to be in the campus physically for final exams twice an academic year. In the two year education period, a student has to come to campus seven times in total: once for registration, four times for final exams, once for campus internship and once for receiving his/her diploma. Students register for each semester and choose courses via internet.

Undergraduate Degree Programs

Co-Education model is being used in all the undergraduate degree programs within Sakarya University. Co-Education model is a combination of traditional education techniques and synchronous and asynchronous lecture approach in conjunction with the face-to-face training in distance education by using technological tools [18].

There's no difference between Co-Education and traditional education except instruction delivery method. Students enter these programs by taking the same metriculation exam, and after registering these programs, they take the exact same courses, write their thesis and do their internship the same way in both systems. While all the lessons are delivered in in-campus in daytime and evening educations, in Co-Education, only %30 of these lessons are delivered in-campus and 70% is delivered off-campus. Co-Education students needs to come to campus on Friday and Saturday.

As in other distance education programs, videos and other materials are being uploaded to system weekly by system administrators. However, the assignments are submitted on face-to-face lessons. Additionally, midterm and final exams are carried out at the same time and in same locations with traditional education students. Likewise, quizzes are carried out in face-to-face lessons.

Some courses which are common across the university like Turkish, English and History of Turkish Republic are delivered via internet to both distance education and traditional education students.

Post-Graduate Programs

In the distance post-graduate programs within Sakarya University, students need to come to campus only for final exams for a weekend in each semester.

The lecture notes can be accessed weekly via the LMS portal during the semester as in the other distance education programs. Students and lecturers discuss the topics about each course on discussion boards.

Virtual class applications are being performed every week for an hour for each course via LMS platform. The lecturers use web-cam, microphone and headphones during these virtual

lessons. Additionally, they can share documents and chat with students. Students may also use their web-cam and microphone in case of lecturer permits. The day after the virtual class performed, system administrators pack up the virtual classes and thus, students are able to watch it again.

For each course, lecturers give two different assignments and students upload their studies in the given time period (generally in two weeks) to the platform.

Midterm exams are carried out off-campus via the distance education platform. The students may take the exam whenever they are available in a week period. However, once the exam starts, they have to complete the exam since they are not able to pause it. Additionally, final exams are carried out in-campus in a weekend stated in the academic calendar.

Under normal conditions, these programs take 3 semesters to complete. After two semesters, students have right to prepare their project with the advisor they choose. In order to graduate, each student needs not only to pass the courses, but also to be successful at his/her project and pass the proficiency exam.

4. CONCLUSION

In this study, the distance education activities in Sakarya University which is one of the leading universities in Turkey, was explained. There are differences in operation between associate, undergraduate and post-graduate programs. At this time, these activities are being performed in an internet-based model via a web portal. R&D works are ongoing in Sakarya University to support the distance education activities with new technological developments.

5. REFERENCES

[1] B. Geber, **Distance Education**, Technology and Learning, Vol 20, No 6, 2000.

[2] M.G. Moore, G. Kearsley, **Distance education: A Systems View**, Wadsworth Publishing, 2004.

[3] N. Dabbagh, B. Bannan-Ritland, **Online Learning Concepts, Strategies, and Application**, Pearson, 2005.

[4] Z. Kaya, **Uzaktan Eğitim**, Pegema Yayıncılık, 2002.

[5] M. Simonson, S. Smaldino, M. Albright, S. Zvacek, **Teaching and Learning at a Distance Foundations of Distance Education**, Upper Saddle River, 2006.

[6] N. Varol, A. Varol, **Bilgi Tünelinde Eğitim Teknolojileri**, VIII Ulusal Eğitim Bilimleri Kongresi, Trabzon, Karadeniz Technical University, October 1-3, 1999.

[7] B. Holmberg, **Theory and Practice of Distance Education**, Routledge, 1995.

[8] A. Duman, **One View of Distance Education Applications in Turkey as Regards to Adult Education**, Ankara University, Journal of Faculty of Educational Sciences, 1994, pp. 285-293.

[9] Y. Gülbahar, **E-Learning**, Pegem-Akademi Publication, 2009.

[10] B. Horzum, **Effect of Transactional Distance on Students' Achievement, Satisfaction and Self Efficacy in Internet Based Education**, Doctoral Dissertation, Department of Educational Sciences, Program of Educational Technology, 2007.

[11] R. Daş, N. Varol, **Günümüzde Uzaktan Eğitim Uygulamalarına Genel Bakış**, 1. Ulusal Bilişim–Multimedya Konferansı Bildiriler Kitabı, April 16-20, 2001.

[12] A.E. Özkul, I. Kabakçı, **İnternetle Öğretimin Yararları ve Sınırlılıkları**, Eğitim Teknolojileri Sempozyumu, Sakarya University, November 2001.

[13] A. Joliffe, J. Riter, D. Stevens, **The Online Handbook Developing and Using Web-Based Learning**, Kogan, 2001.

[14] M. İnceoğlu, **Mobil Öğretim'e Hazır mıyız?**, Açık ve Uzaktan Eğitim Sempozyumu Bildirileri, 2002.

[15] B.H. Khan, **Web-Based Instruction (WBI) What Is It and Why Is It?**, In B.H. Khan (Ed.), Web-based instruction, Englewood Cliffs, NJ Educational Technology Publications, 1997.

[16] M.E. Mutlu, M.C. Öztürk, N. Çetinöz, **Alternatif Eğitim Araçlarıyla Zenginleştirilmiş İnternete Dayalı Eğitim Modeli**, Açık ve Uzaktan Eğitim Sempozyumu Bildirileri, 2002.

[17] E.L. Oliver, **Video Tools for Distance Education**, Barry Willis (Ed.), Distance Education Strategies and Tools, Englewood Cliffs, NJ Educational Technology Publications, 1996.

[18] O. Torkul, N. Açıkgöz, M.B. Erdem, G. Çağıl, G. İlyas **An Application of Benchmarking and Root Cause Analysis of the Co-Education Model**, 10th International Conference on Education And Information Systems, Technologies And Applications/ EISTA 2012, Orlando/Florida/USA, July 17-20, 2012.