Content

Greetings Dear readers of TOJDE,

TOJDE is appeared on your screen now as Volume 10, Number: 4. This is the last issue of the year 2009 and 10th anniversary of TOJDE. In this issue it is published 3 notes for Editor, 13 articles, 4 book reviews. And this time, 33 authors from 13 different countries are placed. These published articles are from Bangladesh, Egypt, India, Iran, KKTC, Lesotho, Lithuania, Malaysia, Pakistan, Romania, United Kingdom, USA and Turkey.

"iPhones and Smartphones" has sent to editor of TOJDE from, USA and written by Kevin YEE & Jace HARGIS from University of the Pacific, California. Their paper involve that the iPhone has become a juggernaut in the United States, with 13 million units sold in 2008 (a 245% increase over 2007) and a further 45 million units expected in 2009 (Elmer-DeWitt, 2009). While iPhone still lags Nokia and RIM internationally, the overall trend toward mobile computing becomes firmer by the day, and it behooves educators to become familiar with the cell phone tools that are relevant for teaching in tomorrow's -and increasingly "today's"- classroom.

The second notes for editor is titled as "Indian School Teachers' Perspective On Globalisation of Education A Case Study of Atomic Energy Education Society School Teachers " which is written by Dr. M. RAJESH and SINDHU. P. NAIR, from Indira Gandhi National Open University. They mentioned in their paper that globalisation has become an enduring reality of our times and more so in the field of education. Teachers are the harbingers of change in the global economy and school teachers have a major role in shaping the attitude of the society towards all social and economic phenomena including that of globalisation. At the Regional Centre of IGNOU situated at Cochin, Kerala an unique training programme was conducted for a year to train school teachers of the Atomic Energy Education Society (AEES) one of the elite educational organisations of the country in ICT applications. This opportunity was utilised by the researchers to conduct a study that holds multiple portends for policy makers to channel the direction of the forces affecting the globalisation of education.

"Evaluation of Utilizing Service Oriented Architecture As A Suitable Solution to Align University Management Information Systems And Learning Management Systems" is the third paper for "Notes for Editor" section of TOJDE's in this issue. It has written by Hamdy K. EL-MINIR, National Research Institute of Astronomy and Geophysic and Haitham A. EL-GHAREEB. Mansoura City University, EGYPT. An article points out that a University consumes University Management Information Systems (UMIS) to handle managerial aspects as they do with Learning Management Systems (LMS) to achieve learning objectives. UMIS advances LMS by decades and has reached stable and mature consistency level. LMS is the newly acquired solution in Universities; compared to UMIS and so adopting LMSs in universities can be achieved via three different deployment approaches. This paper presents the current situation at Mansoura University; Egypt, presents integration as the most suitable solution, and evaluates three different implementation techniques: Dynamic Query, Stored Procedure, and Web services. Evaluation concludes that though SOA enhanced many different aspects of both UMIS and LMS; and consequently university overall. It is not recommended to adopt SOA via Web services as the building unit of the system, but as the interdisciplinary interface between systems.

The first article is a joint study which its authors are from Bangladesh and United Kingdom who A.Q.M. Bazlur RASHID, Hazel JOHNSON and Professor Norman CLARK. Their subject is titled as" Odel Can Address the Reality-Problems Of Agriculturists' Post Graduation In Bangladesh". Their research project was carried out during 2007-08 at the Open University, UK to explore the suitable strategic policy & practices, and partnership possibilities for open, distance and e-learning (ODEL) programme for the postgraduate agricultural education in Bangladesh. Under the new millennium context resurgence of global interest in web-based Open, distance and e-learning (ODEL) has been proved to be potentially useful strategy for human development issues, particularly due to the evolution of fast-growing as well as net-working new Information and Communication Technologies (ICT).

The Second article is on "Collaboration of Stakeholders As An Expanded Learner Support System For A Distance Learner: The Case of Institute of Extra Mural Studies", written by H. Manthoto LEPHOTO and V. Mantina MOHASI from Institute of Extra Mural Studies National University of Lesotho. In this article is mentioned that through some of the stakeholders within this circle ways in which all could collaborate in order to improve and strengthen learner support. The results affirm the importance of an extended circle of stakeholders and the need for both the educational institution and the different stakeholders to collaborate in order to promote learner support needed for distance learning.

The third articles are from Anadolu Universith, Turkey. The third one is on "Open Courseware Opportunities for Architecture Education: Anadolu University ANAPOD Experience", written by Alper CABUK, Hakan SENEL, Halil POLAT, Anadolu University and Saye Nihan CABUK Odunpazarı Municipality Eskisehir. In their paper discussed an efficient information access and mobility has become a prerequisite for the sustainability of all systems and ANAPOD experiences for the architecture education. They mentioned that Internet technology is the fastest and the most proper media to access the required information worldwide, from our daily questions to scientific researches. Within this rapid development, many Internet compatible applications have been specialized to ease information access and sharing. Hence, internet inevitably becomes the top asset for obtaining the inputs, sharing the information and marketing goods and services. Increasing demand for web based education services is also one of the reflections of this rapid development. Internet based education models integrated with computer technologies provide the best and most efficient conclusions for mass education. ANAPOD application is a new education model within University's distance education process, which is highly applicable for many disciplines.

The 4th articles arrived from Iran which is prepared on "Challenges Of Developing Online Learning In Higher Education In Iran", written by Masoud REZAEI GreatPersian Encyclopedia Foundation,. In his study was based on survey research method and a questionnaire was developed to gather the data. The results of the research indicated that three major factors explained 74.4% of variances of challenges to developing online learning. These factors were cultural/educational, technical, and financial challenges.

The fifth article came from Northern Cyprus Turkish Republic and written on Providing Feedback On Student Work In Distance Education In Turkey: Practices and Recommendations, by Murat HISMANOGLU and Sibel HISMANOGLU, European University of Lefke, English Preparatory School, Lefke, KKTC.

The aim of their study is to find out whether distance students are provided any feedback by their faculty, whether they think that feedback provision is beneficial in distance learning process, and lastly whether they would like their faculty to provide them with some feedback. In the conclusion part, considering the high proportion in demand of feedback provision, certain feedback mechanisms will be introduced to make the distance learning process more appealing, encouraging, and fruitful for distance learners.

The sixth article which is entitled as "Perceptions of Malaysıan Students on Computer Mediated Collaborative Learning", written by Siti Hamin STAPA and Maureen Shyamala RAJAMONEY, Faculty of Social Studies and Humanities, Universiti Kebangsaan, MALAYSIA. The purpose of the study is to report findings from an on-going research using Computer-supported Collaborative learning in an ESL classroom in Malaysia. Collaboration is the act of working together to produce a piece of work. Collaborative learning deals with instructional methods that seek to promote learning through collaborative efforts among students working on a given task. At the end of the collaborative activities they were expected to complete written projects. The students were interviewed on their perceptions on this innovative way of learning. The findings indicate that the students have responded positively towards computer supported collaborative learning.

"Studying the Attitudes of Agricultural Faculty Members towards Distance Education", send by Leila SAFA and Seyed Mahmood HOSSEINI, University of Tehran, Tehran, IRAN. In their paper was descriptive survey research which is undertaken to study the attitudes of agricultural faculty members towards distance education. The statistical population of the study consisted of all the faculty members of agricultural colleges of Shiraz and Ferdowsi Mashhad universities. The results revealed that more than half of the agricultural faculty members had moderate familiarity with distance education. Also, the results indicated that agricultural faculty members had a positive attitude towards distance education. Finally, agricultural faculty members ranked time as the primary barrier to using instructional technology in distance education.

The eight article is again came from Pakistan AIOU. Titled article is on A Theoretical Framework For Quality Indicators In Elearning, written by Ciprian CEOBANU, Prof. Roxana CRIUFaculty of Psychology and Education SciencesAnd Laura SANDULUI Faculty of Economics and Business Administration, Al.I.Cuza University, ROMANIA. Their paper focuses on the strong potential that ICT provides, in order to develop the learning possibilities among students. The great challenge is to draw up a quality indicators framework which can represent an instrument for teachers on how to organize their online course – including ways of developing the teaching methods.

The 9th article is arrived to us from Tuırkey again and written by Binnur GENC ILTER on Effect Of Technology On Motivation In Efl Classrooms. The study concludes that technology was a dynamic and challenging motivating factor in EFL classrooms and there may be some suggestions focusing on the achievement of learning objectives.

Next and the tenth article are written Rasit OZEN, Abant Izzet Baysal University Faculty of Education Department of Educational Sciences, BOLU, TURKEY. The paper is entitled as "Investigating the Opinions of Mone Staff about Inset Programs via Distance Education".

He presents that to investigate the opinions of the Ministry of National Education (MoNE) staff about in-service training (INSET) programs via distance education. During the study, the qualitative data were collected through semi-structured interviews held with the (MoNE) staff by the researcher. The results of the interviews revealed the importance of needs assessment, the relationship between INSET program course content and participants' school curriculum, support mechanism in INSET programs via distance education, the application of what is learned and providing various opportunities to them that lead to their active involvement to the application of these programs, the characteristics of learning environments for these programs, INSET instructors' teaching competencies and skills to fulfill various roles in online learning environments, of measuring and evaluating the performance of teachers during INSET programs via distance education and of the effectiveness of INSET programs via distance education.

The eleventh article arrived from Allama Iqbal Open University Islamabad, PAKISTAN, which is titled as "Study on Role of Radio For Rural Education In Pakistan", written Dr Nabi Bux JUMANI, Department of Distance Non Formal and Continuing Education. He focused on an overview of the Radio schools like Interactive Radio instruction (IRI) may be used for effective teaching learning process in rural areas. Time of educational programmes should be enhanced. Programmes like radio rural forum may be started as well as open broadcasting should be adopted for rural development programme.

The article is which numbered as 12, from Tukey. Article is entitled as "Learners' Perception of Blended Writing Class: Blog and Face-to-face, written by Aysel BAHCE and Nazmi TASLACI, from Anadolu University.Their paper reports this research that was to investigate student perception of blended writing classes. It was conducted with intermediate level EFL learners in the preparatory school at Anadolu University. Data consisted of student reflections. The first reflection aimed at finding out learners' perception of fall term writing lessons, and, the instant and final reflections aimed at finding out learner perception of blended writing lessons. Although learners' perception of writing lessons was negative in the first reflections, they changed into positive in the latter ones. The findings indicated that blended writing class had changed students' perception of writing lessons positively. Therefore, this kind of classes may help students develop a positive attitude towards writing by providing meaningful writing opportunities.

In 13ht article theme is very intresting on these days for our planet during global warming. In this article is environtmental education via television is mentioned as a subjet by Nedim GURSES and Cosgul YUKSEL from Anadolu University Open Education Faculty, Eskisehir, TURKEY. Their artile is entitled as "Environmental Education via Television: Eskisehir Camlıca District Case". In their article, they asked and mentioned that, education is an inevitable necessity to carry the targeted society to the position of environmentally aware individuals. It is taught that television is a good and the best media and educational tool in an environmental education to a targeted group that has fairly high ratio of television watching habits contrary to reading habits. So, what can be the properties of an environmental education program?

Four books are reviewed in this issue. The first one is about belogs to me and my colleague Dr. N. Serdar Sever. The book is titled as THE CHALLENGES FOR MARKETING DISTANCE EDUCATION IN ONLINE ENVIRONMENTAn Integrated Approach reviewed by Reviewed by Natalija LEPKOVA, from Lithuania.

The book is purposed of role of marketing and to understand trends in the field and customer needs in a global marketplace. In this case the customers are students and they could be called as a "kings" of the market. This is a challenge with online learning because the field is in a constant state of development. Marketing online education programs is becoming more of a necessity as global competition increases. To be on time and in a right place-this is the target of distance learning marketing.

The second one about "Economics of Distance and Online Learning Theory, Practice and Research" By William BRAMBLE & Santosh PANDA. The book points to directions for the further research and development in this area, and will promote further understanding and critical reflection on the part of administrators, practitioners and researchers of distance education. The experiences and perspectives in distance education in the US are balanced with those in other areas of the world.

The third book review reviewdd by Alev ATES, Ege University, Izmir, TURKEY, on "The Handbook of Blended Learning: Global Perspectives, Local Designs". She mentioned concluded that, "The Handbook of Blended Learning: Global Perspectives, Local Designs" is a quite comprehensive reference with the contributions of prominent experts in instructional technology and a helpful handbook for those who wish to learn more about blended learning, BL design models and example case studies of worldwide implementations in local higher education institutes and also in organizations.

The last and the fourth reviewed book Reviewed by Ozlem OZAN from Osmangazi University, Eskisehir, Turkey. This book discusses how educational technology can be used to transform education and assist developing communities to close the knowledge divide. Its broader audience is anyone who is interested in educational technology for development. In the book you can find best practices and case studies especially from countries in Africa.

Dear readers, you can reach us online either directly at http://tojde.anadolu.edu.tr or by visiting Anadolu University homepage at http://www.anadolu.edu.tr from English version, clicking on Scientific Research button and than goes to the Referred Journals. To receive further information and to send your recommendations and remarks, or to submit articles for consideration, please contact TOJDE Secretariat at the below address or e-mail us to tojde@anadolu.edu.tr

Hope to stay in touch and have good readings up to meet in our next Issue,
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Cordially,

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iPhones and Smartphones

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Long utilized in European and Asian countries, fast "next generation" cell phone networks and mobile data streams have only recently begun to make deep inroads in the United States, and companies are scrambling to write content, tools, and new applets ("apps") for these users. The iPhone has become a juggernaut in the United States, with 13 million units sold in 2008 (a 245% increase over 2007) and a further 45 million units expected in 2009 (Elmer-DeWitt, 2009). While iPhone still lags Nokia and RIM internationally, the overall trend toward mobile computing becomes firmer by the day, and it behooves educators to become familiar with the cell phone tools that are relevant for teaching in tomorrow's--and increasingly "today's"--classroom.

Smartphones have for years offered SMS instant messaging, but the first uses of that technology have inevitably been social rather than educational in nature (Reid, 2004). The recent rise in popularity of the iPhone has, however, sparked interest in new uses for SMS with the advent of new and expanded audiences. One promising online tool offers instant polling via SMS: polleverywhere.com's free account allows up to 30 responses per 1-question poll, with unlimited polls per account.

This opens up the possibility of classroom response systems that require no student purchases of the clicker hardware. While accountability back to the student and grades are not feasible with polleverywhere.com's solution, instructors can harvest quick, anonymous feedback and encourage otherwise reluctant students to engage and participate.

Apart from texting, modern cell phones come equipped with cameras, which can combine with email capabilities to offer a potent alternative to writing on whiteboards. Working at their seats, singly or in groups, students can photograph their work and email it to the instructor, who then can choose from the submissions which to highlight on the lecture hall's projection of his computer station, and further discuss the anonymous work. Cameras may also be useful in field work and group projects.

But perhaps the greatest use of Smartphones has been the web browsing capability. Essentially pocket computers carried by almost all students, today's cell phones can surf the Internet and access most content that formerly had to be seen from their desktop computers at home.

Instructors might imagine students in the lecture hall looking up facts, verifying information, or using web-based prompts for roleplays, groupwork, and problem-based learning, in some cases entirely replacing the need for handouts.

There are limitations; some Course-Management Software (CMS) like BlackBoard may not function on cell phone browsers, since they lack web programming languages such as Flash or Java.

One of the major revolutions created by the iPhone specifically has been the convenience of offering apps, including many free ones, from the ubiquitous iTunes shopping cart software also used to purchase and manage mp3s on iPods. The resulting cascade of available apps has been breathtaking. In the first twelve months since its inception in July, 2008, the iTunes App Store logged 65,000 apps and 1.5 billion downloads (Apple, 2009).

Inevitably, many apps are offered for free, and dozens speak to individual industries and disciplines. The list is seemingly endless: customizable flash cards, an interactive periodic table, the collected works of Shakespeare, scientific and graphic calculators (which can render 3D objects and rotate them at a touch), art collections, MRI brain scans, foreign language tutors, maps of the world, dictionaries, and dozens more. iPhones feature still more built-in applications, including one for YouTube that may also encourage faculty to weave more videos into their teaching. Suddenly, students may have access to rich media right from their seats, and the possibilities for on-the-spot groupwork are enticing indeed.

The primary hurdle may not be technological, but rather financial in nature. Not every student will have a SmartPhone, let alone an iPhone specifically. Abilene Christian University (ACU, 2009) became the first college in the United States to give all incoming freshmen an iPhone or iPod Touch, and both University of Florida's College of Pharmacy (Martin, 2009) and the University of Missouri's School of Journalism (Eddy, 2009) will start requiring incoming students to purchase their own, but these are exceptions rather than the rule. For most universities, it is difficult to imagine mandating such purchases from individual students, so instructors will most likely be reduced to seeking volunteers from among the class population.Inevitably, this will result in the formation of buzz groups clustered around the iPhone bearers, which in and of itself may not be a bad thing, though it may take longer to organize groups and re-direct students back to the plenary discussion.

Students might be allowed to use phones for "backchannel" discussions; basically discussions among themselves that occur without involving the lecturer, such as clarifications or amplifications of points made during the lecture, but in real time while the lecture continues. While there are numerous possibly ways to implement such a backchannel discussion, a Twitter feed provides the simplest solution. Such a system could also be used to post (anonymous) questions to the lecturer that are examined only every so often, which provides a new venue for the more shy students who nonetheless have a pressing concern.

One caveat for interested users will be the role of iPhones and SmartPhones in off-task behavior, particularly if backchannel discussions are encouraged. Absent backchannel discussions, however, instructors could easily dictate the specific moments when cell phones are to be used, with the understanding that all other times are to be technology-free. In this fashion, classroom management issues should remain minimal, even in technology-rich classroom environments that reap maximal benefits from the technology already in the hands of many students.

BIODATA and CONTACT ADDRESSES of AUTHORS

Dr. HARGIS has authored two books and over forty academic articles as well as over one hundred national and international presentations. Currently, he is an Assistant Provost at the University of the Pacific and an Associate Professor of Education. His undergraduate and graduate degrees are in the chemical sciences and he has earned a Ph.D. from the University of Florida in Science Education, specializing in the area of informal learning settings, which is the focus of his research agenda.

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INDIAN SCHOOL TEACHERS' PERSPECTIVE ON GLOBALISATION OF EDUCATION
A Case Study of Atomic Energy Education Society School Teachers

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ABSTRACT

Globalisation has become an enduring reality of our times and more so in the field of education. Teachers are the harbingers of change in the global economy and school teachers have a major role in shaping the attitude of the society towards all social and economic phenomena including that of globalisation. At the Regional Centre of IGNOU situated at Cochin, Kerala an unique training programme was conducted for a year to train school teachers of the Atomic Energy Education Society (AEES) one of the elite educational organisations of the country in ICT applications. This opportunity was utilised by the researchers to conduct a study that holds multiple portends for policy makers to channel the direction of the forces affecting the globalisation of education.

Keyword: Globalisation of education, teachers and globalisation of higher education.

INTRODUCTION

Globalisation a phenomenon by which any activity becomes worldwide or the barrier to it becoming so gets dismantled. Globalization is very often used to refer to economic globalization that is integration of national economies into the international economy through trade, foreign direct investment and capital flows. Though the phenomenon of globalization covers all fields including arts and cultures, in popular parlance, it mostly refers to an economic phenomenon (wikipedia : 2008)[1].

As far as education is concerned, globalisation is not a new phenomenon either economically, or culturally. The current phase of globalisation of education is closely associated with the General Agreement on Trade in Services (GATS). Therefore it would be pertinent to see the stipulations laid down by GATS.

> **MODE1: It covers the aspect of Cross- Border Trade; this covers all those activities in which a producer exports a service from its own territory to a consumer in a foreign country. For example, an educational Institution in India provides an on-line educational programme to students in another country.**

[1] http://en.wikipedia.org/wiki/Globalization

MODE2: It pertains to consumption abroad. This takes care of all those cases where a consumer goes abroad to obtain a service. For example if a patient goes abroad for treatment it is a case of a service consumed abroad or a student from one country visiting a foreign country to obtain a degree.

MODE3: It covers within its ambit the aspect of commercial presence. This implies that a service provider from one country sets up business subsidiary or branches in another country. For example, if IGNOU establishes its branches in foreign countries, it indicates the commercial presence of IGNOU in that country.

MODE4: It deals with the Movement of Natural Persons. In this case a member of the service-providing firm goes to the domestic territory of another country to provide a service there. Such movements are only for a short period of time. For Example, a Distance Learning institute of India sends its administrative officer to Dubai to manage the affairs of its branch there for a period of Five years.

GATS enjoin upon its members certain obligations that can be grouped under two categories:

- **General Obligations and**
- **Specific obligations**

The General obligations are those that apply to all the service sectors irrespective of whether a country has made commitments on them or not. These can be noted as follows:

1. **Most Favoured Nations Treatment (MFN): GATS stipulate the acceptance of Most Favoured Nations Status (MFN) in the case of services too. The MFN status stipulates that any commercial advantage provided to one of the signatories on a particular product must be provided to all other signatories who export a like product to the country. For Example, if Government of India permits Anadolu Open University to run its programmes in India, the same facility must also be extended to Singapore National University if the latter requests the Government of India for the same.**
2. **Obligations related to rule framing and implementation: GATS enjoins its members to internationally notify/publish changes in laws, rules and regulations that have a bearing on international trade in services. Similarly, any regulation that the members frame to deal with business relations between service providers, especially those dealing with Foreign Service providers must be based on objective criteria and must be applied equally to all service providers (Friends of Earth:2002). Further, "Paragraph 4 of Article VI of the GATS calls upon the Council for Trade in Services to develop new disciplines to ensure that non-discriminatory measures relating to qualification requirements and procedures, technical standards and licensing requirements and procedures do not constitute unnecessary barriers to trade. As part of the implementation of this provision, the Services Council established the Working Party on Professional Services (WPPS) with the mandate to develop such disciplines in the area of professional services and designated the sector of accountancy as a priority"(ITD:2003)[2].**

[2] www.itd.org/eol/e/wto06_18.htm#note1 (visited in 2003)

3. **Rules related to the working of Monopolies: The GATS signatories should ensure that working of monopolies for providing services should not in any way violate the working of the country's MFN obligations(Friends of Earth:2002)[3].**

On the other hand Specific Obligations apply only to those service sectors in which a country has made commitments. They are

1. **Market Access Obligations: As regards the market access obligations of member nations, GATS is very categorical in its approach. It states the following**

> ***"When a member undertakes a commitment it must indicate for each mode of supply what limitations, if any, it maintains on market access. Article XVI:2 of the GATS lists six categories of restrictions which may not be adopted or maintained unless they are specified in the schedule. All scheduled limitations on market access therefore must fall into one of these categories. They comprise of four types of quantitative restrictions as well as limitations on foreign equity participation and on the types of legal entity permitted."(ITD: 2003)[4]***

National Treatment Obligation: GATS in its National Treatment obligation "under Article XVII requires members to accord to services and service suppliers of any member treatment no less favourable than that it accords to services and service suppliers of national origin"(ITD:2003)[5]

In the study that follows, an attempt is made as to judge the perception of school teachers as regards the impact of globalisation of education under GATS is concerned.

METHODOLOGY OF THE STUDY

The study was conducted using a multipurpose questionnaire through which the requisite information was sources both on the numerical and descriptive scales. The attempt being at getting a holistic understanding of the participants' perception on globalisation, both scales were felt as required.

A number of graphical methods were used to suit our analytical requirements. The sample technique adopted for the selection of the same is Simple Random Sampling.

The Sample

The study was undertaken on the Atomic Energy Education Society school teachers who had been deputed to attend an Information and communication technology training programme under the auspices of IGNOU Regional Centre Cochin.

Though totally more than 1600 school teaching staff is to attend this programme, a random sample of 68 participants were selected to conduct the study. The randomness of the sample ensures that the sample is unbiased.

The Age - Wise details of this sample is given below in Table 1 and chart A

[3] Friends of Earth (2002 Edition)

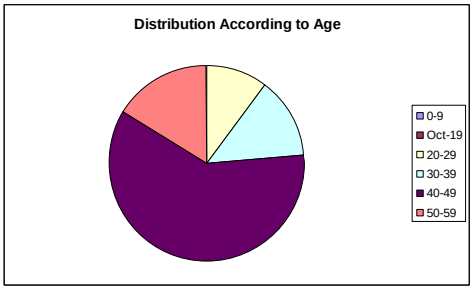
[4] www.itd.org/eol/e/wto06_27.htm#note2 (visited in 2003)

[5] www.itd.org/eol/e/wto06_27.htm#note2 (visited in 2003)

Table: 1
Age-Wise Distribution

Age (Class Interval)	Number (Frequency)
0-9	0
10-19	0
20-29	7
30-39	9
40-49	41
50-59	11

Chart A

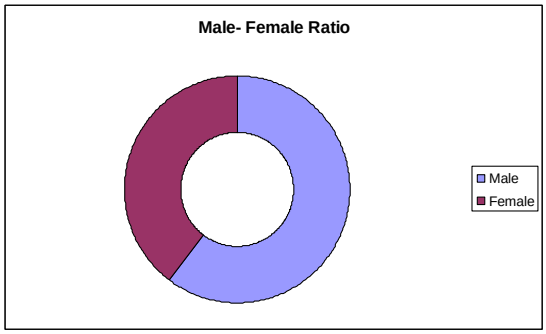


It can be noted here that the maximum number of respondents are in the age group 40-49.The Male Female distribution of the sample is given in Table 2 and Box B

Table: 2
Male/Female Distribution

Male	Female
41	27

Chart B

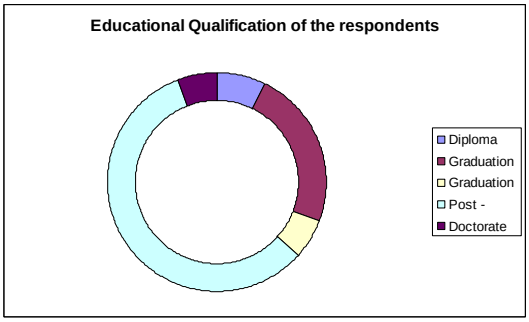


More than 60% of the respondents are males.The details of qualification pertaining to the sample is given in Table: 3 and Chart C

Table: 3
Qualification of the Selected Sample

Diploma	Graduation (Non-Technical)	Graduation (Technical)	Post - Graduation	ctorate
5	16	4	39	4

Chart C



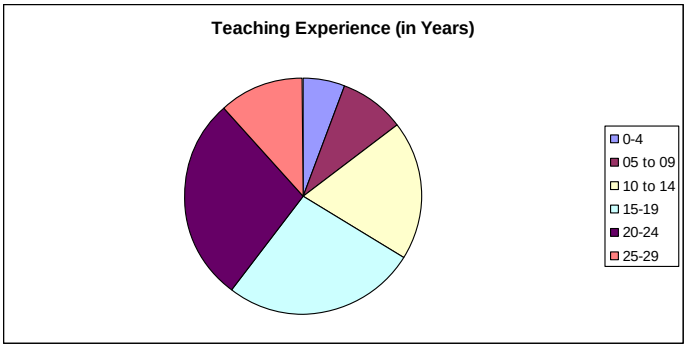
We can see that the respondents are highly educated. All of them atleast possess a graduation degree and most of them are post graduates (57%). In this way the credibility of the opinions expressed could be counted upon.

The details regarding the Teaching Experience (in years) of the sample of participants is given in Table: 4 and Chart D

Table: 4
Teaching Experience (in years)

Class Interval	Frequency
0-4	4
5-9	6
10-14	13
15-19	18
20-24	19
25-29	8

Chart D

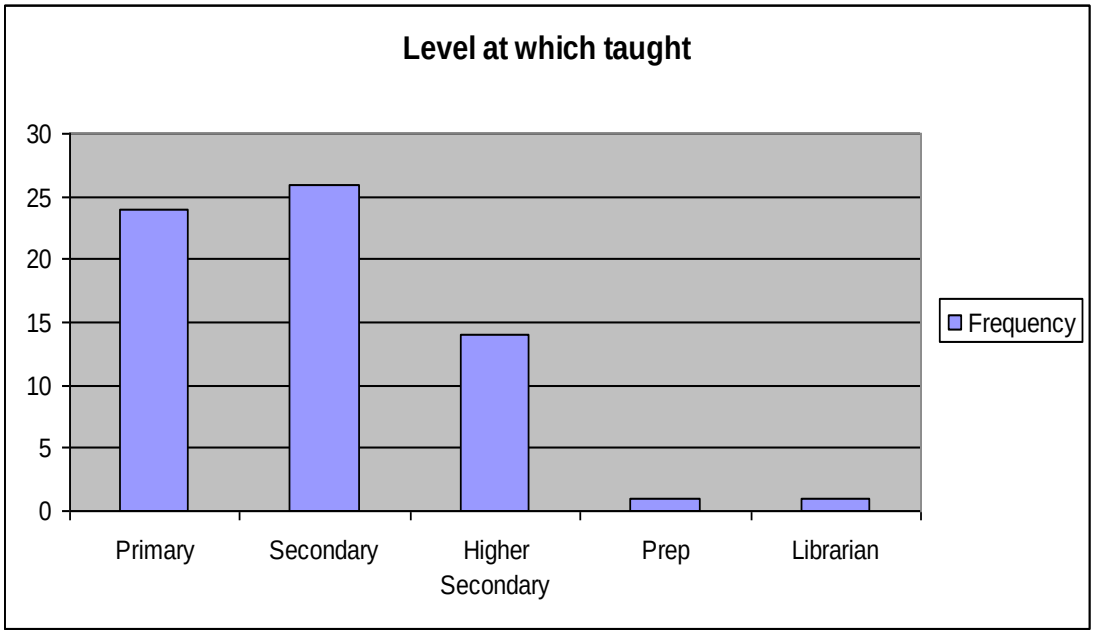


The details regarding their teaching experience level is given in Table 5 and Chart E

Table: 5
Teaching Experience Level

Level	Frequency
Primary	24
Secondary	26
Higher Secondary	14
Prep	1
Librarian	1

Chart E



GLOBALISATION OF SCHOOL EDUCATION

Globalisation being a very distinct and vast issue area, it was felt that a number of aspects should be gauged in order to arrive at a clear picture about the perception of AEES teachers on the issue of globalisation.

The sequence of questions raised and the responses received are given below.

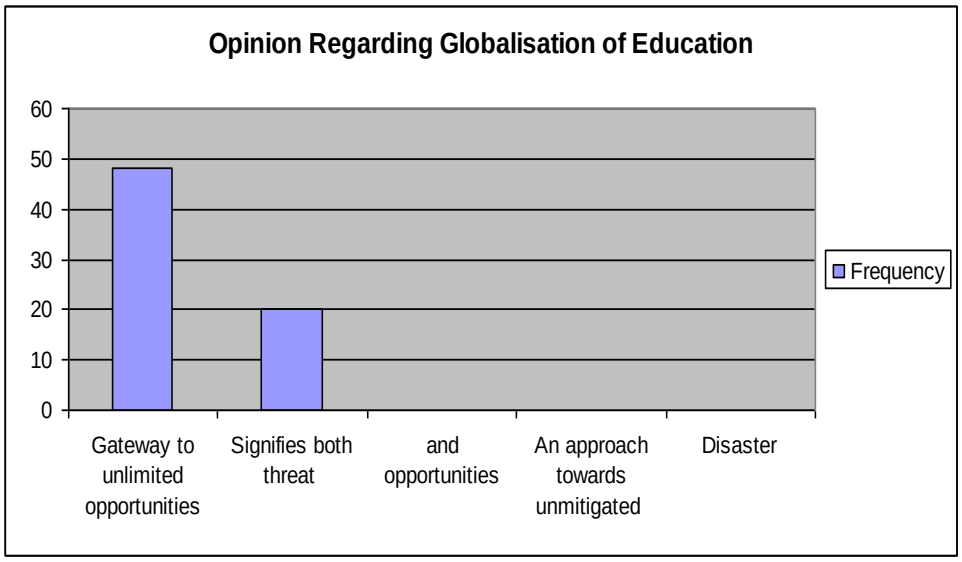
The first question that was put forth to the participants was their opinion regarding the overall impact of globalisation on the field of education.

The response elicited is depicted in Table: 6 and Chart F

Table: 6
Opinion regarding the overall impact of globalisation on the field of education

Opinion	Frequency
Gateway to unlimited opportunities	48
Signifies both threat And opportunities	20
An approach towards unmitigated Disaster	0

Chart F



The response elicited here is quite interesting to note. Almost 30% of the respondents feel that there could be both opportunities and threats as a result of globalisation of school education.

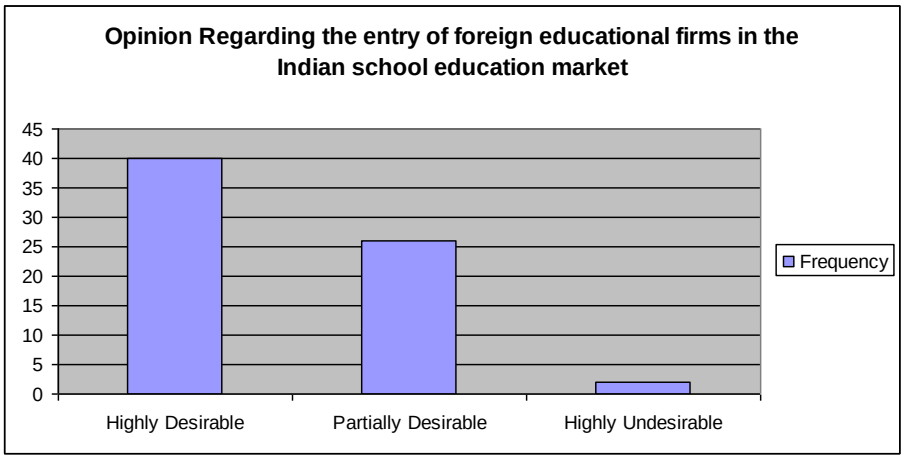
The remaining 70 % feel that it is a gateway to unlimited opportunities, signifying that there is indeed a groundswell in support of globalisation of education. The most significant aspect noted here is that none of the participants feel that it is an approach towards unmitigated disaster.

The responses to the question as to whether the entry of International Education Firms in Indian School Education Desirable or not is tabulated in Table: 7 and Chart G below

Table: 7
Is the entry of foreign educational firms desirable?

Responses	Frequency
Highly Desirable	40
Partially Desirable	26
Highly Undesirable	2

Chart G



It is interesting to note here that more than 97% of the respondents feel that the impact of GATS will either be highly desirable or at least partially desirable.

The teachers those who have stated that the entry of international educational firms into the country is highly desirable have given the following reasoning for their argument:

- **The entry of foreign institutions into the country may result in the improvement of teacher- student ratio which is at present abysmal.**
- **The foreign firms may bring in new technology, especially those related to ICT that would improve the digital infrastructure of Indian schools.**
- **It may enable students to compare the performance of Indian institutions with that of foreign ones and thereby could be a choice of quality.**
- **The introduction of innovative teaching techniques will result in an improvement in the quality of the teachers.**
- **It may also make Indian students more confident and competitive.**
- **The introduction of the latest developments in the field will hasten India's entry into the comity of developed nations.**

- **It will enable the teachers and the students both to understand the latest trends in educational technology**
- **It may lead to ensuring better availability higher education options due to international coverage.**

On the other hand, the teachers who have stated that entry of foreign educational firms is partially desirable have stated the following as the major reason for their view:

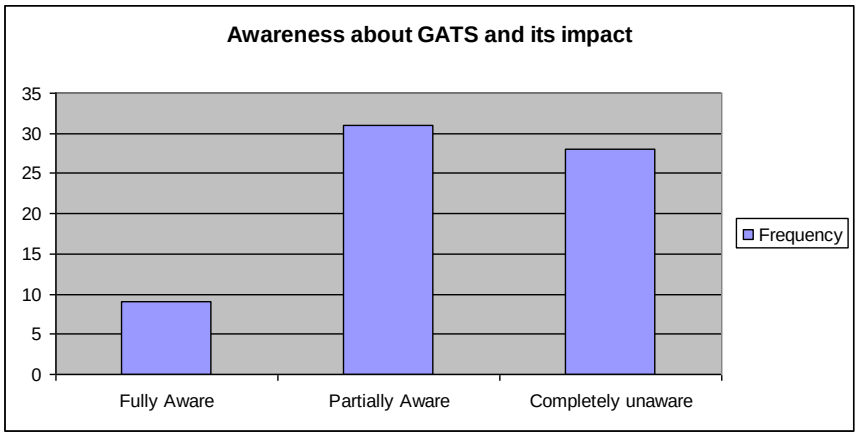
- **It is only to be welcomed partially so that our heritage and customs remain intact.**
- **The primary objectives of Indian and foreign firms may not be uniform.**
- **It may partially be welcomed with the view only of improving Indian education to global levels**
- **Only partially desirable since our emphasis should be on primary level education whereas the emphasis of these institutions would be on secondary level education.**
- **A combination of Indian traditional system and foreign inputs is most desirable.**
- **Those who view the entry of foreign institutions as highly undesirable primarily base their arguments of the issue of erosion of Indian cultural values. They state that India has its own unique set of values and ethos, which needs to be preserved.**

As regards the level of awareness about GATS and its impact on education among teachers, the following aspects were tabulated in Table: 8 and depicted in Chart H.

Table: 8
Are you aware about GATS and its impact on education?

Opinion	Frequency
Fully Aware	9
Partially Aware	31
Completely unaware	28

Chart H

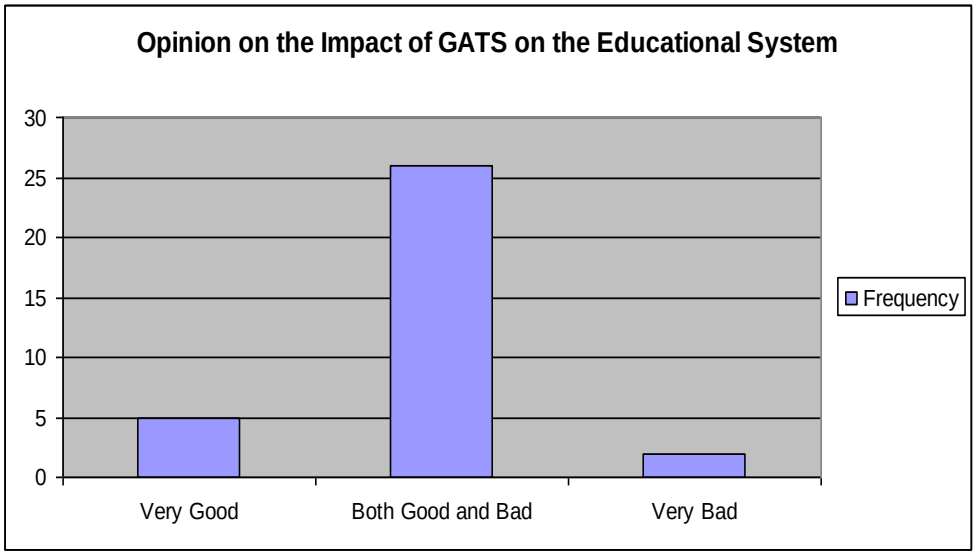


The depiction shows up a matter of very deep concern. Only 13% of the respondents are fully aware of the impact of GATS on education. The rest 87% are either only partially aware or completely unaware. This brings us to the need of a very strong awareness drive as far as GATS is concerned. The next question raised was on the perceived impact of GATS on the educational system of the country. The responses elicited are tabulated in Table: 9 and depicted in Chart I

Table: 9
Impact of GATS on the educational system of the country

Opinion	Frequency
Very Good	5
Both Good and Bad	26
Very Bad	2

Chart I



The respondents who view the impact of GATS as Good for the educational system state it would lead to better job opportunities for the students on account of a rich syllabi. The competency of the learners will also improve up to a very great extent. It is further stated that Indian students would get an opportunity to access high quality foreign education, while staying in India. Such students will also get an opportunity to know about foreign culture. While there may be positive aspects to the issue, most respondents have expressed their fears about its adverse effects.

- **It is feared that without proper regulation and enforcement globalisation of education could affect adversely the quality and standard of education in the country.**
- **It could result in brain drain**

- **Could ultimately negatively affect our unity, integrity and culture.**
- **Since it is assumed that the primary motive of foreign firms is different from Indian firms, it could adversely affect national interest.**
- **Vernacular languages could get ignored**
- **It could restrict our freedom in implementing our own education policy.**
- **There could be a conflict of values.**

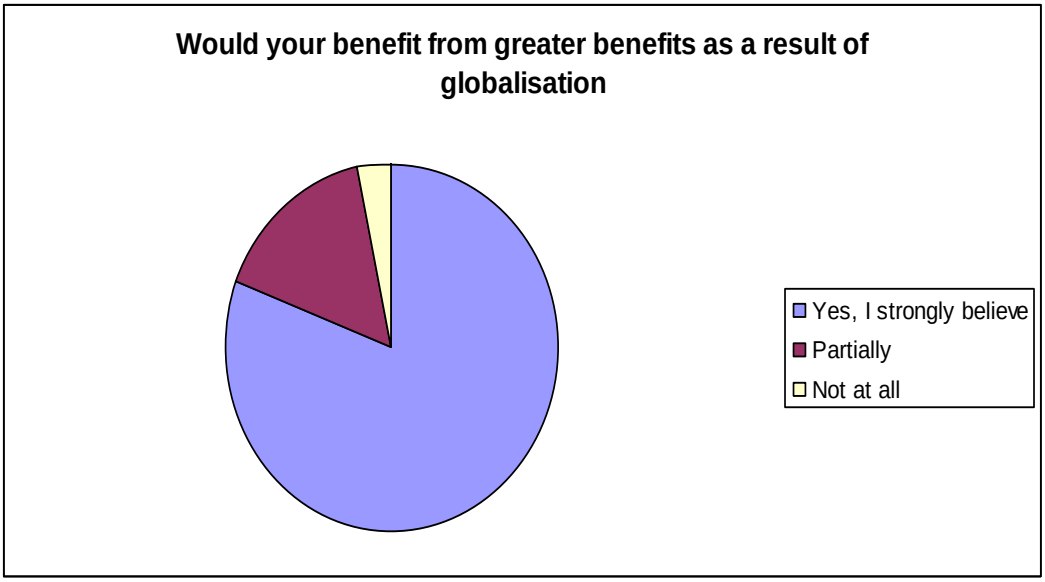
On a more personal note it was enquired whether the teachers felt that they could benefit from greater opportunities provided by globalisation.

The responses are tabulated in Table: 10 and charted in Chart J.

Table: 10
Do you believe that you will benefit from greater opportunities as a result of globalisation?

Opinion	Frequency
Yes, I strongly believe	55
Partially	11
Not at all	2

Chart J



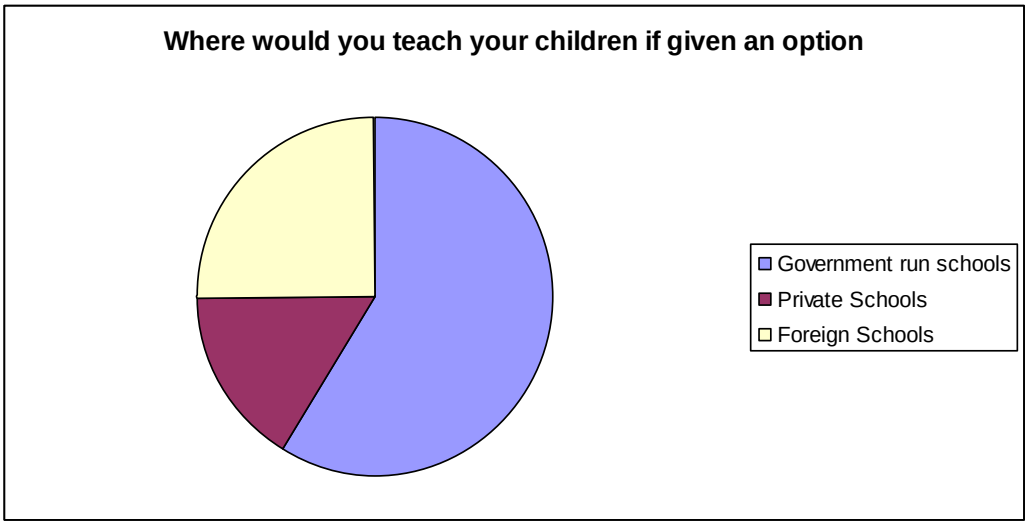
It was indeed surprising to note that most teachers, that is more than 97% felt that they would be in a position to gain from the process of globalisation of education in some form or the other.

Continuing with the personal note, it was further enquired as to where they would like to teach their wards and the responses are given in Table: 11 and Chart K.

Table: 11
If given an opportunity,
where would you like to teach your children?

Opinion	Frequency
Government run schools	37
Private Schools	10
Foreign Schools	16

Chart K



It was indeed surprising to find that most of the respondents (55%) preferred to send their wards to government schools. Those respondents who stated that they would send their wards to government run schools state that:

- **Government schools are appropriate for the economically weaker sections of the society, who form the vast majority of the population in the country, due to their low fees.**
- **Government schools have more experienced teachers, where as in private schools, the teachers keep changing frequently.**
- **The government schools besides being cost effective are dependable and accountable**
- **They follow, uniform curricula and policies.**

The respondents who stated that they would prefer Indian private school state that the important reasons for their decision are:

- **That private schools provide better results, include latest technologies and also use latest equipment**
- **That they have better infrastructure**
- **They have dedicated staff**

The respondents who prefer to send their wards to foreign institution state that:

- **The learners are given the latest technologies and facilities**
- **They have excellent infrastructure**
- **The student tend to become more competent**
- **The students get more international exposure, experience**
- **The teaching modules will become more flexible in character.**

The respondents were also enquired about the new probable challenges that the educational system could face in the context of globalisation. Their responses were as follows:

- **One important challenge is to fine tune our teaching methodology in accordance with global teaching learning systems.**
- **Another challenge for the teachers is to learn the latest ICT and teaching methodologies.**
- **They also have to take care of the skill upgradation aspect**
- **The teachers may have to adapt themselves to an entirely different teaching culture.**
- **The teaching community will have to better compete with the teaching communities of other/foreign institutions.**
- **The teaching community will have the challenge of upholding the Indian culture, values and customs.**

The respondents also felt that the following New Teaching Learning Practices could emerge in the context of globalisation

- **Demonstration and practical based teaching would emerge. Teacher's role should be that of a motivator.**
- **Satellite based education would emerge**
- **Greater focus would be on demonstration and interactive techniques**
- **The teacher-student gap would be greatly reduced.**
- **There would be a shift from a mark centred approach to a knowledge centred approach**
- **New concepts like the E-Libraries, Online Learning, Virtual Class rooms etc would gain prominence.**

MAJOR FINDINGS OF THE STUDY

- **The most important result of the study is that if the AEES teachers are taken to represent the microcosm of Indian Government school teachers, there is surprisingly a wide support for globalisation. It is felt that globalisation could bring in the latest technologies, the latest pedagogic techniques and also the latest attitudes into the Indian education system.**
- **It is felt that as a result of globalisation, the teaching – learning process could undergo a sea change. E-Learning, Online education, practical based learning etc could become common as a result.**
- **The teaching community feels that the major challenge of globalisation would be that of adaptation to the latest techniques and the need for common upgradation of skills.**

- **Though the teachers feel that they would still prefer their children to study in government run schools, they still feel that foreign schools could have the advantage of better technology and better pedagogic processes.**
- **There needs to be a blend of Indian and foreign values as far as the pedagogic changes in the newly envisaged system are concerned. The finest aspects of the Indian teaching tradition when blended with the western tradition can indeed bring out amazing results.**
- **The awareness levels about GATS and globalisation per say, is a matter of deep concern. The fact that even among a group that is highly educated, the level of awareness is so low, indicates a matter of very serious concern.**
- **Another result of the study is that even though a clear understanding of GATS may not be there, a concern about the maintenance of quality on account of the entry of foreign firms exists. This concern was voiced by many teachers.**
- **The AEES teachers feel that there could be a number of challenges to the teaching community on account of globalisation. They aver that the adaptation process may not be very smooth.**

CONCLUSION

The study has brought to light many important facets of the perception of Indian school teachers as regards globalisation of education. Globalisation is a multidimensional phenomenon with numerous portends. Under the auspices of GATS globalisation has acquired a definite structure, meaning and scope. The teachers of AEES represent the very elite of school teachers working under the government machinery. It can be concluded from the study that while they generally support globalisation, they are alive to the changes that it can bring and the adaptation needed to that extent.

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EVALUATION OF UTILIZING SERVICE ORIENTED ARCHITECTURE AS A SUITABLE SOLUTION TO ALIGN UNIVERSITY MANAGEMENT INFORMATION SYSTEMS AND LEARNING MANAGEMENT SYSTEMS

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ABSTRACT

To help universities achieve their goals, it is important to align managerial functionalities side by side with educational aspects. Universities consume University Management Information Systems (UMIS) to handle managerial aspects as they do with Learning Management Systems (LMS) to achieve learning objectives. UMIS advances LMS by decades and has reached stable and mature consistency level. LMS is the newly acquired solution in Universities; compared to UMIS, and so adopting LMSs in universities can be achieved via three different deployment approaches. First approach believes in LMS ability to replace UMIS and performing its functionalities. Second approach presents the idea of extending UMIS to include LMS functionalities. Third approach arises from the shortages of the two proposed approaches and present integration between both as the appropriate deployment approach. Service Oriented Architecture (SOA) is a design pattern that can be used as a suitable architectural solution to align UMIS and LMS. SOA can be utilized in universities to overcome some of information systems' challenges like the integration between UMIS and LMS.

This paper presents the current situation at Mansoura University; Egypt, presents integration as the most suitable solution, and evaluates three different implementation techniques: Dynamic Query, Stored Procedure, and Web services. Evaluation concludes that though SOA enhanced many different aspects of both UMIS and LMS; and consequently university overall. It is not recommended to adopt SOA via Web services as the building unit of the system, but as the interdisciplinary interface between systems.

Keywords: **University Management Information System, Learning Management System, e-Learning, Service Oriented Architecture**

INTRODUCTION AND OBJECTIVES

E-Learning has been widely used to refer to computer based systems that not necessarily help main objectives of learning. UMIS is not the appropriate solution to support e-Learning; because it is not based on philosophical theories of learning. Also, LMS shall not focus intensively on managerial aspects of the university and focus on learning objectives. LMS is the software that automates the administration of training, as it registers users, tracks courses in a catalog, records data from learners, and provides reports to management. On the other hand, UMIS is the software that automates Students Affairs and Youth departments' activities in the university. They both complete each other, with the fact that UMIS advances LMS by decades.

Surveying Open source, free, and commercial LMSs yield the fact that LMSs tend to present enough managerial activities to the extent that makes them a standalone solution for universities. While Mansoura University has its own in house developed and deployed solution to manage university activities, adopting LMS as a replacement is not accepted. A solution to integrating UMIS and LMS via portals was presented in (Klims 2007).

Though university portals can present a solution to the current situation, it is considered a missing solution because systems are not really integrated on application level but are integrated on user level. So, applications are still isolated islands that need to exchange data between each other. There is a real need of loose coupling in LMS and it will be of high importance in the near future (Kunkel 2006).

This paper goes as follow: section two presents a description of the current situation in Mansoura University, concluding with the importance of integrating both UMIS and LMS as the only suitable solution. Section three presents the evaluation of proposed solution from both information system quality parameters and pedagogical point of view. Section four concludes the paper and presents future work. Paper ends by references.

DESCRIPTION OF THE CURRENT SITUATION AND PROPOSED SOLUTION

Mansoura University runs its in house developed and deployed UMIS for more than a decade right now. UMIS has reached a stable and well mature state when compared to the newly introduced LMS in the university. To adopt LMS functionalities in the University; without making LMS and UMIS isolated islands, there are three deployment approaches to choose from:

- **Approach One (LMS replaces UMIS): University will replace its UMIS with LMS that will perform both educational and managerial functions. Challenges are: UMIS has been customized to fit University rules and regulations and it is not easy to let it go simply, importing current data into LMS might be a challenge, and there is a risk of system inconvenience especially if LMS failed to provide managerial functionalities the way UMIS do.**

- **Approach Two (UMIS takes over LMS): University will add learning functionalities to current UMIS. Though this approach overcomes shortages of previous one but still has some challenges to manage, like time to develop and add the new features while university can make use of advanced features available right now via LMS providers, and dealing with emerging standards.**
- **Approach Three (Integrate UMIS and LMS): Neither LMS will replace UMIS nor UMIS will take over LMS. Both UMIS and LMS will exist and interoperate to enable university to achieve its managerial and educational tasks in efficient and effective manner. This alternative avoids all challenges presented in alternatives one and two. It avoids replacing UMIS risks, and provides flexibility to change LMS without affecting UMIS, and provides an immediate solution to make use of current available LMS functionalities.**

Approach three presents the most suitable solution to the current situation with technical challenges to integrate different information systems side by side while keeping in mind that different information systems require different information presentation for the same entity.

Student is an example of the entities that require different information presentations. Student data required by UMIS differ than student learning profile needed by LMS (Britain and Liber 2008).

UMIS student record includes data like ID, Social Security Number (SSN), name, age, gender, address (street, city, country), email, username, password, Date of Birth (DOB), faculty, year, department while LMS student profile include data like a detailed records of what students have already learned at the level of learning objects, a learning preferences profile, and a development portfolio of transferable skills, a history of student interactions with tutors, peers, and other significant learning activities (Riad and El-Ghareeb 2007).

Current IT Infrastructure

Figure: 1 presents the current scenario in Mansoura University; where users can be classified into UMIS users; to handle non-educational activities, and LMS users; to handle educational activities.

To generate a detailed report of the courses and the learning contents, the user has to go through UMIS to generate the courses IDs and LMS to acquire the learning content. UMIS and LMS are isolated islands connected only via users.

The assessment experience by Faculty of Computers and Information Sciences in Mansoura University; http://www.m-assessment.info highlighted many of the challenges exist in the University.

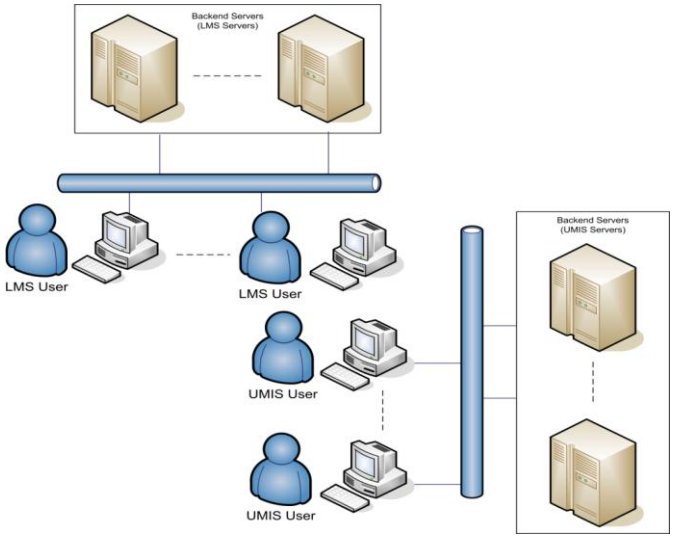

Figure: 1
Current Scenario (Isolated UMIS and LMS integrated via users)

Assessment Management System (AMS) team asked students to register explicitly for the AMS; and that is not accepted. A single-student registration is a must to satisfy all learning interactions with the University.

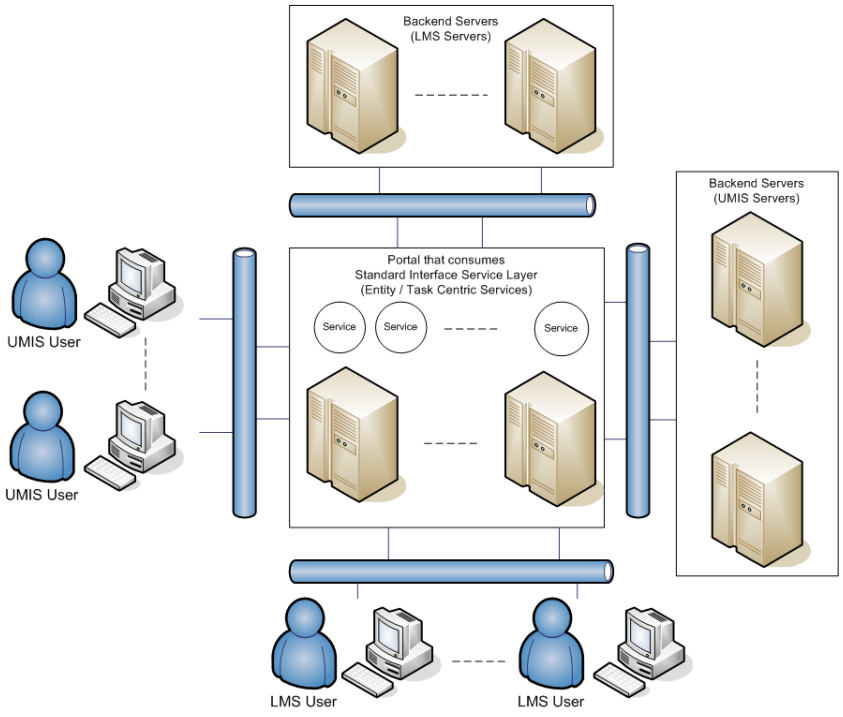

Figure: 2
Proposed Solution Presenting a Service Layer
as Intermediary between UMIS, LMS, and Users

Proposed IT Modifications

Figure 2 presents the proposed solution where a Service Layer shall be added in the middle area between UMIS, LMS, and users. Middle layer facilitates integration between different systems via Web services. Web services are relatively a new technology that have received wide acceptance as an important implementation of SOA (Endrei 2004). Middle layer can provide portal(s) to unify users' interaction with different systems. More information about proposed Course Management System (CMS) can be found in (Riad and El-Ghareeb 2007) and AMS can be found in (Riad and El-Ghareeb 2008).

EVALUATION OF PROPOSED SOLUTION

Evaluation of proposed solution includes Information Systems, and Pedagogical perspectives.

- **Information Systems Evaluation: Figure: 3 present architectural parameters that can be used in evaluating information systems. It is evaluator's responsibility to determine the most valuable architectural aspects to be considered in the evaluation process (Fielding 2001). Information systems quality parameters evaluated in this paper are: Network Performance, User Perceived Performance, Integration and Interoperability, and Reusability. SOA enhances system overall security, replace ability, testability, and both hardware and software scalability (Erl 2005).**
- **Pedagogical Evaluation: Pedagogically, LMS shall enable universities and educational institutions to provide educational services in an easy, effective, and efficient manner. LMS providers and evaluators must be aware of pedagogical effects that will affect instructors and students. Current LMSs do not provide the required pedagogical effects (Duffy and Kirkley 2004). One of the reasons is technology limitations. SOA helped LMS to come over some of the technology limitations.**

Information System Evaluation Quality Parameters

From information system perspective, quality parameters like performance, integration and interoperability, compliance, security, maintainability, analyzability, decomposability and modularity, testability, portability via replaceability and scalability, simplicity, modifiability, and reusability shall be addressed. A Comparative performance analysis study is presented to test SOA based systems user-perceived performance against non-SOA based systems.

Network Performance

SOA based systems relies heavily on messaging. It is clear that SOA based applications need to add extra headers to manage requests and responses in standard format. Header can be classified into two Static Header and Dynamic header.

Static header is added once for every time the service is invoked while Dynamic header is added for every record contained within request or response message. Network Delay can be calculated using the formula (Kurose and Ross 2005):

Total Delay = Transmission delay + Propagation delay + Processing delay + Queuing delay Because processing and queuing delays are less than micro seconds, they are ignored and the formula becomes:

Total Delay = Transmission Delay + Propagation Delay because the amount of transferred data within evaluation lab was static, Propagation delay is static, so the Total Delay becomes the value of Transmission Delay.

Transmission Delay = (M + N – 1) L / R
Where:

- **M = no. of communication links**
- **N = no of packets**
- **L = packet size**
- **R = Transmission Rate**

Transmission delay is affected by file size (F). In the previous formula F = N*L.
By analyzing data in the request and response messages, it is noticeable that there are three data categories.

- **Static Header: This header occurs once for each service invocation no matter how many records in the request. There are 463 characters for one of the test headers.**
- **Dynamic Header (XML Tags): Those tags are the overload of requests and responses. Those tags are named by developer, so they are not static every time, but in the same test message there is 179 characters.**
- **Actual Data: Those are the record details to be inserted after invoking the Web service.**

So, Total extra characters = Static Header + XML Tags. So, file size in SOA will be:

$$F_{SOA} = F + SH + RH * R$$

Where:

- **F = total data size without headers**
- **SH = Static Header**
- **RH = XML tags required to represent a single record**
- R = no of records

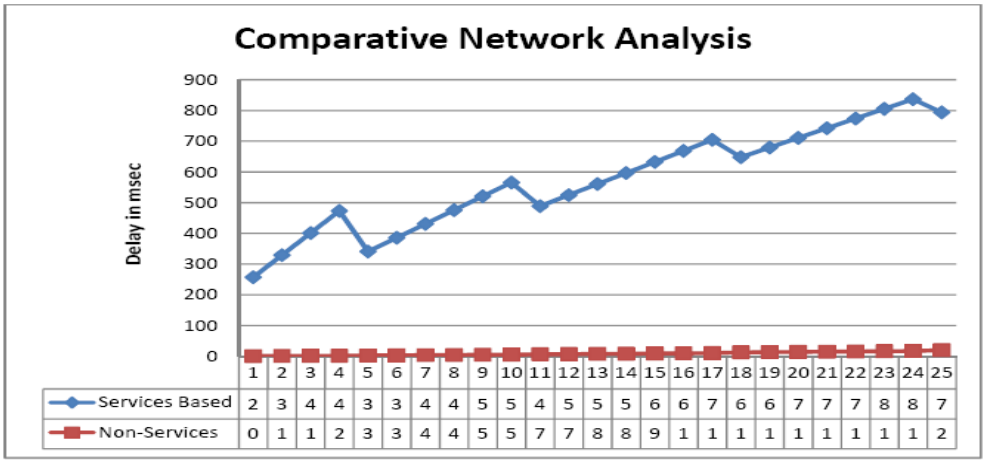

Figure: 3
Comparative Network Analysis between Services and Non-Services based System

This formula depicts that added extra headers differs according to the no. of records to be handled, and differs from an application to another (because the header used to represent an author might be different from the one used to represent a book) so network performance differs from an application to another.

Figure 3 presents a comparative network analysis between the services based system and non-services based system implemented in this case study. It is the system architect responsibility to decrease the transferred data over the network to the maximum extent (so decrease network delay) because it is noticeable that headers needed by SOA cannot be neglected easily.

User Perceived Performance

Web services are the main SOA enabler. It is expected that utilizing Web services within an application will affect User Perceived Performance. In order to understand the extent to which Web services affect User Perceived Performance, three different Library Management Systems (LIS) were implemented tested against the same data samples.The three different LISs are Parameterized Query based LIS, Stored Procedures based LIS, and Services based LIS. While Parameterized Query based LIS SQL statements exist within the web pages and accesses database directly, Stored Procedures LIS highlights the separation between data layer and application layer by the presence of Stored Procedures as a middle layer in-between the portal and the databases. The Portal consumes stored procedures to access the databases. The services based LIS presents the services layer in between the portal and database layer to present a standard based interface layer that consumes stored procedures and available for portals.

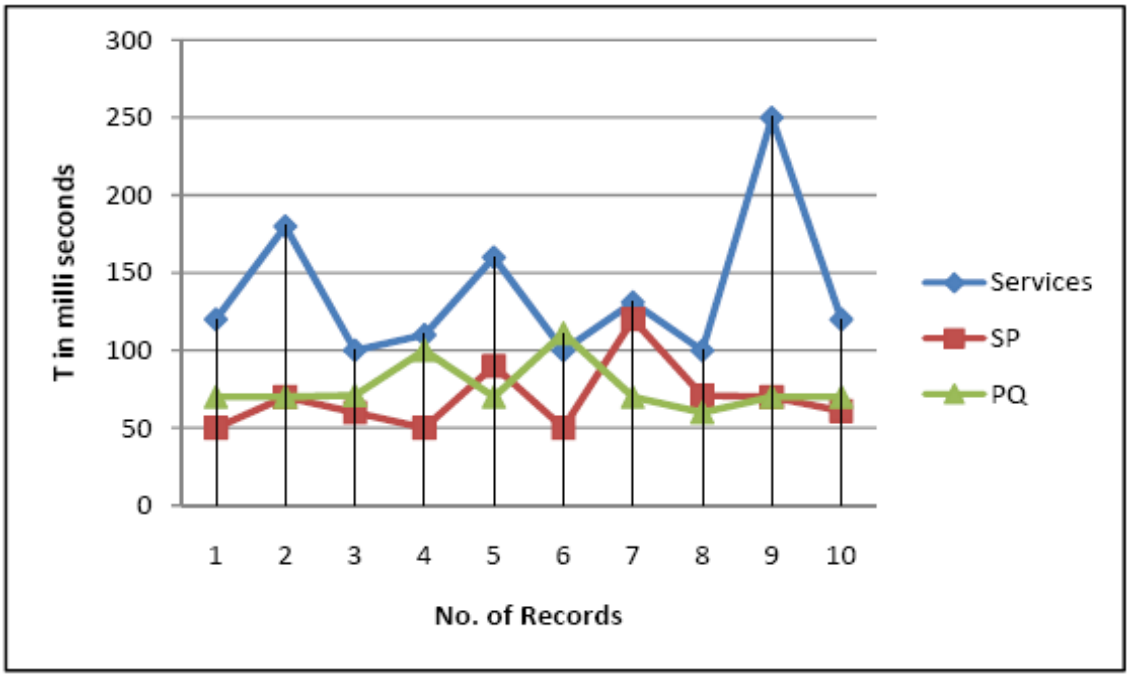

Figure: 4
Insert Performance Measures of the three LIS Architectures

Figure: 4 illustrate statistics of the Insert process for the three implemented LISs. Table: 1 is a summary of the arithmetic mean and mode for each system. Services based LIS presented the highest arithmetic mean and mode values while Stored Procedure based LIS were the best for the insert operation.

Table: 1
Insert Operation Measurements Summary–
Measures are in Milli-Seconds per Record

Architecture	Arithmetic Mean	Mode
Service Based	137.1	100
Stored Procedure Based	69.2	50
Parameterized Query Based	76.2	70

Figure: 5 presents the statistics of the Update operation followed by table 2 that displays summary of arithmetic mean and average of the same operation. Services based LIS is the lowest in performance compared to stored procedures and parameterized query based LISs. In the mean while, stored procedures based LIS is the best performance regarding the Update operation?

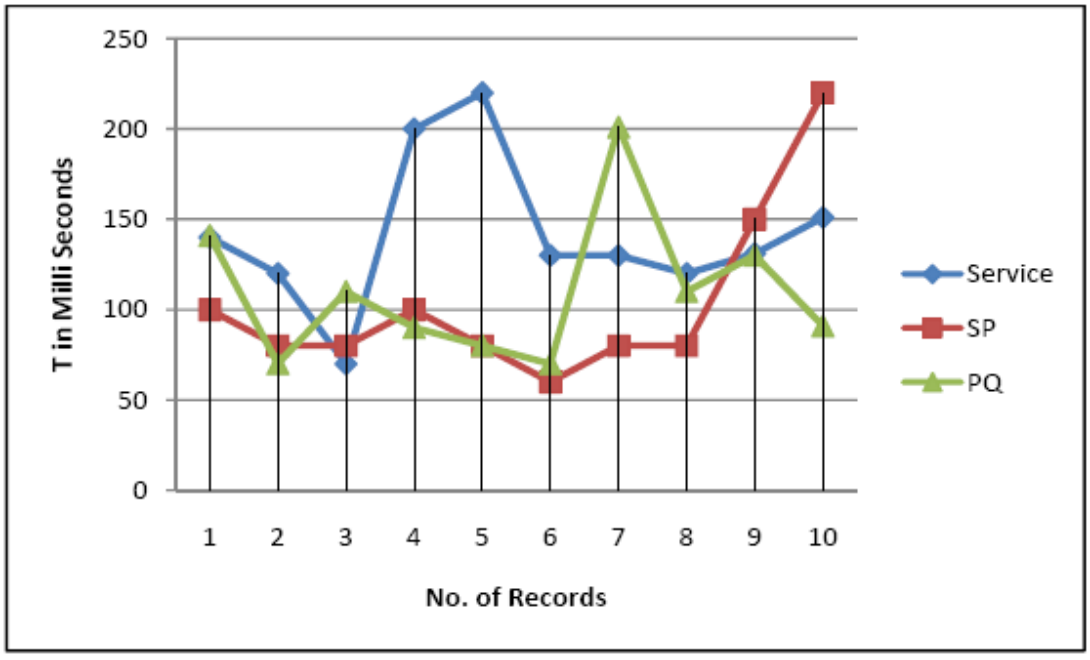

Figure: 5
Update Performance Measures of the three LIS Architectures

Table: 2
Update Operation Measurements Summary–
Measures are in Milli-Seconds per Record

Architecture	Arithmetic Mean	Mode
Service Based	**141.2**	**120**
Stored Procedure Based	**103**	**80**
Parameterized Query Based	**109.3**	**70**

Figure: 6 present statistics of the Select By ID operation of the three implemented LISs, followed by table 3 that summarizes the arithmetic mean and mode.

Services based LIS is the highest in ranges.

While arithmetic mean and mode depicts that parameterized query based LIS performance is better than the stored procedure based LIS, it is noticed that parameterized query based architecture was highly affected by the amount of data retrieved, and its performance was not within small ranges; not like stored procedure one.

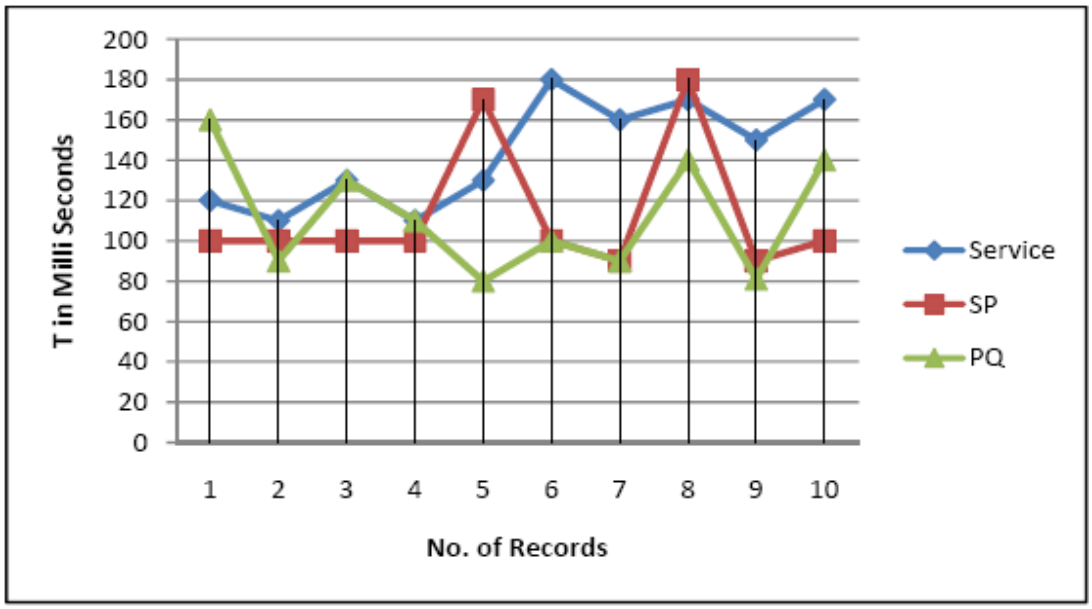

Figure: 6
Select By ID Performance Measures of the three LIS Architectures

Table: 3
Select By ID Operation Measurements Summary-
Measures are in Milli-Seconds per Record

Architecture	Arithmetic Mean	Mode
Service Based	**143**	**110**
Stored Procedure Based	**113**	**100**
Parameterized Query Based	**112.1**	**90**

Figure:7 presents the total amount of time required by each of the three LISs to retrieve all data stored in the database, with no filter applied. Stored Procedures based LIS achieved the best time, services based architecture required time to retrieve the stored records exceeded the double time consumed by stored procedure based system, and parameterized query based system performance lies in between.

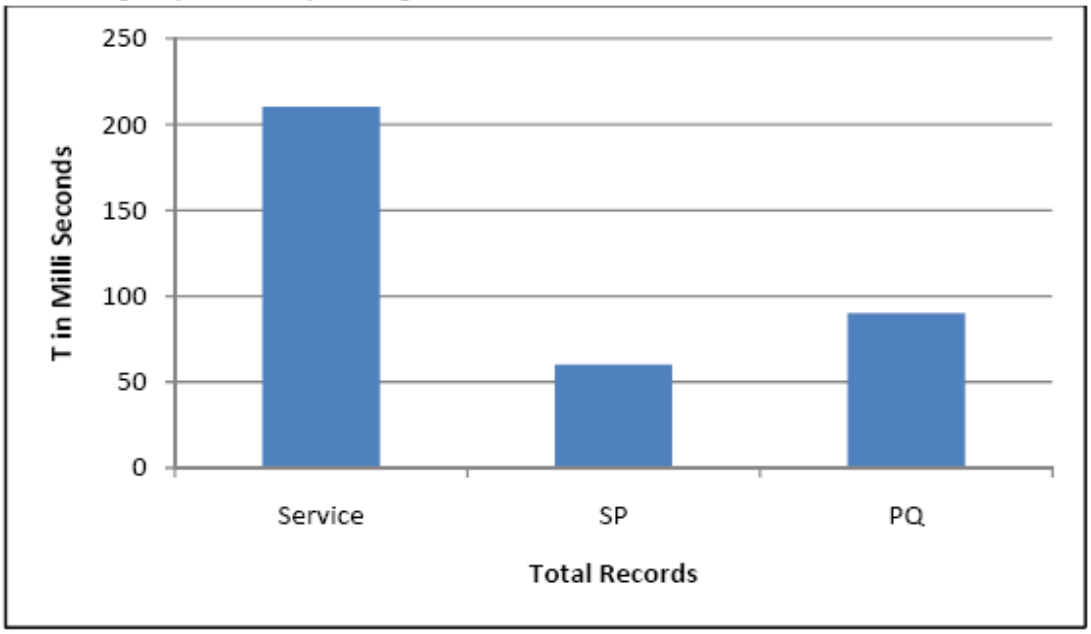

Figure: 7
Display All Performance Analysis of the three LIS Architectures

From the presented performance analysis and after evaluation of the three LISs, it is clear that the time consumed to perform the same operations using the services based LIS exceeds the time consumed to perform the same operation using either the stored procedure LIS, or the parameterized query one.

Integration and Interoperability

Systems can share their effects within a single operation via service level integration. Assessment Management System (AMS) did not have to access Student Affairs Information System database tables to retrieve and update student table data; instead, it just invoked the Update_Student service exposed.

AMS includes a Take Assessment Process that needs interoperability between AMS and external systems as presented in paper (Riad and El-Ghareeb 2008). Without this interoperability, Mobile assessment would not have taken place at all. SOA utilization in the system gave the system capability to expose standard interfaces that act like sockets to be plugged in to connect systems.

Reusability

Reusability is achieved in the proposed architecture on two levels: Internal and External. Internal reusability distinguished the application capability to use the implemented service more than once without modification. This happened with the Update functionality, where it consumed Delete and Insert functions.

Services were not written every time. External Reusability refers to the external systems that consumed the exposed internal services to achieve functionalities. CMS shared services with AMS and UMIS, and that reusability distinguished the advantages of SOA.

Pedagogical Evaluation

While integrating UMIS and LMS needed the SOA based system, pedagogical aspects are affected indirectly. No matter how mature LMSs become, there are more functionalities to be added.

- **LMS was not affected; from the pedagogical point of view, by adopting SOA. SOA adoption facilitated integration of software agents within new proposed systems. Software agents have played; and still, important roles in e-Learning. Integrating software agents with Web services was presented successfully in proposed Course Management System (Riad and El-Ghareeb 2007) and Assessment Management System (Riad and El-Ghareeb 2008).**
- **Mobile assessment refers to the capability of conducting assessments via mobile devices. Mobile assessment relies on external services that are not part of the LMS. Integrating different external systems and services to be virtually part of the educational institution LMS is one of integration challenges. Mobile Learning (M-Learning) is an approach to e-learning that simply utilizes mobile devices, yet it can also be viewed as a quiet different learning experience. It is possible to force series of interactive SMS exchanges between learner and LMS to achieve completion of a task or goal. Learner will take part, and complete the task. M-learning has been used as a pre and/or post activity to other types of learning. Assessment for learning can be thought as one of the post learning activity that can be achieved via mobile phones. Mobile Learning was successfully implemented and the main enabler was SOA adoption.**

- **Unlocking Course Repositories via Automating the Discovery, Downloading, and Paying of Shared Courses was one of the pedagogical advantages gained by adopting SOA (Riad and El-Ghareeb 2007). One of the critical limitations of a newly established educational institution is the lack of available well prepared courses. It is more applicable to use widely available courses that might be higher in quality than preparing new courses. Current Course Management Systems (CMSs) do not exploit courses shareability. A SOA based CMS is proposed to highlight automated discovering and importing of courses maintained and managed by external CMSs. Educational institutions can increase Return-On-Investment (ROI) by selling courses.**
- **Digital Library contents are available to all LMS components to utilize, search within, and enrich the learning activity with valuable contents without the need to adopt new systems. SOA facilitated the integration between LMS components and Digital Library solution.**

CONCLUSION AND FUTURE WORK

SOA adoption within e-Learning in the form of UMIS and LMS presented information systems' advantages as well as pedagogical ones. It is clear that there is still more to be discovered and more advantages will become available upon adopting SOA in e-Learning.

Evaluating Information System quality parameters highlighted the fact that SOA based architectures most fit between information systems as an integration facilitator, but when used to build the entire applications, it affects the system performance greatly.

Pedagogically, SOA has helped e-Learning achieve more than one goal. One of the critical limitations of a newly established educational institution is the lack of available well prepared courses. It is more applicable to use widely available courses that might be higher in quality than preparing new courses. Current LMS do not exploit courses shareability.

Proposed SOA based LMS addressed this shortage, automated discovering and importing of courses maintained and managed by external LMSs. Proposed LMS facilitates integration between different LMSs in order to share resources of educational institutions. SOA facilitated integration between software agents that play an important role in educational institutions and Web services; that is the core of proposed SOA LMS. Also, integrating legacy systems and newly added systems is facilitated by SOA. M-Learning is enabled by proposed system. Mobile assessment is one of the M-Learning activities facilitated by proposed SOA based system.

Mobile assessment relies on external services that are not part of the LMS. Integrating different external systems and services to be virtually part of the educational institution LMS is one of integration challenges.

The capability to integrate the different digital library contents and make it available to different LMS components is a clear example of the SOA capabilities to integrate different and standalone system components and make them available to each other.

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ODEL CAN ADDRESS THE REALITY-PROBLEMS OF AGRICULTURISTS' POST GRADUATION IN BANGLADESH

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ABSTRACT

A research project was carried out during 2007-08 at the Open University, UK to explore the suitable strategic policy & practices, and partnership possibilities for open, distance and e-learning (ODEL) programme for the postgraduate agricultural education in Bangladesh.

The methodology followed was based on the searches on Internet, Journal articles, books, periodicals, brochures, proceedings, reports, attending lectures workshops, seminars, symposia, conferences, contacts, and visits to other Universities/Instition/ Organisations for case studies.

Under the new millennium context resurgence of global interest in web-based Open, distance and e-learning (ODEL) has been proved to be potentially useful strategy for human development issues, particularly due to the evolution of fast-growing as well as net-working new Information and Communication Technologies (ICT). The study reveals that though ODEL has been found widely used in many reputed and world leading universities in UK for higher studies leading to degrees, diploma and certificates on arts, general & environmental sciences as well the commerce subjects, and trainings for professional developments etc.

The application ODEL especially in higher agricultural education and training leading to MScs and PhDs is almost scanty except a few cases of Fisheries and Livestock, the two sections of Agriculture in the Universities like the University of Sterling, University of Edinburgh and the University of London (Royal Veterinary College) etc.

But in cases of other major areas of Agricultural subjects such as the crop sciences including Agronomy, Soil science, Crop botany, Horticulture, Plant Pathology, Entomology, Genetics & Pl. Breeding, Agric. Extension Education, Agric. Chemistry, Biochemistry, Agro forestry, Biotechnology, Seed Sci. & Techno. Farm Structure, Farm Power & Machinery, Irrigation & Water Management, Food Tech. & Rural Farm Industry, Agricultural Economics, Agricultural Finance, Agricultural Statistics, Ag. Cooperation & Ag. Marketing, Rural Development etc. the application of ODEL has not yet been found employed in anywhere except, a few recent endeavours under a limited scope in the Asian countries like India (IGNOU).

ODEL extends the learning and self-development opportunities to those beyond the access to the conventional system due to professional, familial, economic, geographical etc. restrictions. The scenario is more acute especially in case of the applied science like Agriculture in Agriculture-dependent developing country like Bangladesh where the tool may be potential alternative to address the postgraduate agricultural education, the acute problem of a vast number of target group seeking higher studies. Bangladesh is one of the most thickly populated and agriculture dependent developing countries of the world, and Bangladesh Agricultural University (BAU) established in 1962 is only the premier seat of higher agricultural education and research in the country offering Masters and Doctoral degrees through the conventional face to face class room system. Since its establishment out of the total passed out bachelors (BSc Ag.) so far till July 2007 only 31.29% Masters and 0.64% PhDs have been produced. Bangladesh has recently been connected to the information super-highway through submarine cables.

As a result, along with BTTB private companies already could ramify their ICT-based business orientations in different sectors like banking, transportation, administration etc.

The use of computer and the long-ranged, portable electronic device with the telephone and the cell phone networks are widely used now a day. Under the circumstances, for better and progressive existence in the competitive global context it should be concentrated on its special attention to the ICT-based ODEL as a pragmatic focal issue with a view to transforming the ever increasing vast population potential into more productive force, so as to solve the higher agricultural education problems and ultimately towards greater awareness and appreciation leading to sustainable agricultural development and alleviating poverty in the country.The study evidences that there is an ample paradigm shift towards ODEL system in providing accessible postgraduate agricultural education in Bangladesh. On the basis of study on ODEL ongoing programmes at different Universities the following policy and practices have been recognised to be recommended to the concerned BAU authority.

- **The course materials for the students must be bespoke, having been developed for the ODEL mode, and are not simply a course that provides material on the web. It ensures that the students enjoy the same high quality teaching environment and exposure to innovation as the students on campus-based courses.**

- **Development of adequate students' supports and facilities along with valid accreditation of their degrees.**
- **Development of highly skilled special academic as well as administrative expertise for the ODEL-based postgraduate in agricultural education programme.**
- **For high technology and innovation as well as need-based action researches, global partnership development programme should be initiated.**

Thus BAU can go even beyond the boundary of the country with its high quality ODEL, especially Asian countries and the South Asian neighbourhood in particular but requires a strong need for an international intervention in planting the 'ODEL seed' into the conventional system in Bangladesh.

Keywords: ODEL; Post graduation; Agriculture; Bangladesh.

INTRODUCTION

The twenty first century has witnessed increasing paradigm shift in the conventional system of imparting knowledge. Indeed, it is no longer absolutely necessary to be physically present in a classroom in order to learn.

Modern electronic technology determines the system instruction to be delivered. Students who are unable to enroll in the traditional face to face class room system for any reason but want to have chance for his/her education may be the greatest beneficiary. Everybody now a day can enjoy the benefits of learning through the media and the new information and communication technology around (Heinich et.al., 2002).

Bangladesh is one of the most densely populated countries in the world, with 150 million people living in an area of 55,599 square miles (2850 per square mile) in 2007 (Anonymous, 2007). The country has a primarily agrarian economy where Agriculture is the single largest producing sector since it comprises about 30% of its GDP and employing around 60% of the total labour force. The performance of this sector has an overwhelming impact on the major macroeconomic objectives like employment generation, poverty alleviation, human resources development and food security.

Most Bangladeshis earn their living from Agriculture (Anonymous, 2008). Agricultural education has therefore, been considered as a priority sector, and thereby the subject is taught in almost all primary level to University branches of educational organisation in the country.

Out of more than two dozens of Public Universities, there are about one third are the Agricultural Universities among which Bangladesh Agricultural University (BAU) stands for the only premier seat of higher education and research in the country offering Masters and Doctoral degrees in the field of Agriculture through the face-to-face conventional system, but in a very limited scale to the context of greater need. The vast number of B.Sc. Ag.

Degree holders engaged in various institutes/organisations cannot afford to extend their better expert exposure in their respective jobs and assignments due to lack of higher studies leading to M.S. and PhDs.

Besides, as per service rules, without higher degree(s) they cannot be befitted for the higher positions with desired emolument/scale or incentives, nor they can contribute to the progressive agricultural development and sustainability. On the other hand, including BAU there are almost half a dozen Agric. Univ. in the country which produce several thousands of fresh B.Sc. Ag. every year. And out of them only a few/limited number with excellent result can get the opportunities to peruse their higher studies leading to Masters and PhDs.

The agricultural bachelors with B.Sc. Ag.(Hons.) degree especially those engaged in different organisations/institutes remain unaffordable to continue subsequent higher education through the institution –based conventional system due to their geographical, familial, economic and other disadvantages and also those affordable students who do not get access to high competitive enrolment after passing the bachelor degree, the situation of which is always tormenting.

This is because not only for these sufferers but also for the future plight of the sustainability of agricultural education as well as overall agricultural development on which the progress of GDP and poverty reduction depends to cope with the ever increasing crying need of the country to the context of highly competitive globalization.

Thus due to lack of proper scope and facilities a significant portion of Agriculturists in the country cannot afford to continue their education up to the desired level through the conventional system. In such a way a vast number of other disadvantaged agricultural workers also remain out of the scope of having their requisite post graduation and modern technical know-how. Therefore, it has become an imperative to create alternative opportunities for this vast number of target groups seeking for their higher studies, and only open, distance and e- learning (ODEL) may be the better option. Under the circumstances, a study was carried out on a project– Strategic Policy and Practices of ODEL for Postgraduate Agricultural Education in Bangladesh at the Open University, UK during 2007-2008.

OBJECTIVES

To explore:

- **Strategic Policy & Practices**
- **Partnership Probabilities**

METHODOLOGY

Bibliography

Collection of reviews, literature, relevant information and data collections were done during all through the study through the following search.

- **Internet search**
- **Journal articles, books, periodicals, brochures, proceedings.**
- **Theses/dissertations, reports.**
- **Attending lectures meetings/seminars/symposia/conferences.**
- **Contacts/correspondence.**
- **Visits to other Universities/Institutes/Orgs. for case studies.**

Training/Practice

Training and practices are the indispensible part of any fruitful deed. Now a day ODEL is the most popular form of ICT-based education every where of the contemporary developed as well as developing countries. Therefore, it was very important to have clear experience from the ICT-ODEL infrastructure and the ICT-cultured framework some practice cum training oriented programs.

Data analysis

The collected information/data were subjected to analysis and put in the results and discussion. The relevant figures and photographs were also included.

RESULTS AND DISCUSSION

What is Open, Distance and E-Learning (ODEL)?

Teaching and learning today are no longer confined to the classroom or the schooling days only. There have been evolved many technologies that can offer a great deal of flexibility in when, where, and how education is distributed. Open, Distance and E-learning (ODEL) also known as correspondence study or flexible independent study from a distance, is any non-traditional educational process which exists outside the institution-based face to face classroom setting. Courses are taken by students in their own homes or any convenient place using a variety of means such as self-directed print media (modules), electronic media- computer, audio-videos, TV etc. including all other web-based ICT differentiating from traditional pen and paper correspondence. ODEL is characterized by the following:

- **Physical separation of students and teachers,**
- **Organized instructional programme by an educational organization,**
- **Use of media (books/modules, television, voice, audio-video cassette, radio, computer technology and internet etc.)**
- **The communication is interactive in that the teacher receives some feedback from the student. The feedback may be immediate or delayed.**

Contemporarily the term ODEL is being used to refer to computer-enhanced learning in so many contexts that it is critical to be clear what one means when one speaks of distance education using electronic devices (Bazlur Rashid and Hazel Johnson, 2008). In many respects, it is commonly associated with the field of advanced learning technology which deals with both the technologies and associated methodologies in learning using networked and/or multimedia technologies. E-Learning lessons are generally designed to guide students through information or to help students perform in specific tasks. Information based e-Learning content communicates information to the student (Derek Stockley 2003). Many technologies can be, and are, used in ODEL, including - blogs, classroom response system, collaborative software, computer aided assessment, discussion boards, e-mail, educational animation, electronic performance support system, ePortfolios, games, hypermedia in general, learning management systems, PDA's, podcasts, MP3 Players with multimedia capabilities, multimedia CD-ROMs, screen casts, simulations, text chat, virtual classrooms, web-based teaching materials, web sites and web 2.0 communities, wiki etc. Most eLearning situations use combinations of these techniques. Heinich and et. al. (2002) described similar characteristics of distance education.

The same phenomenon may be applicable in case of higher agricultural education in any where in the world, being the global village.

It is evident that in ODEL, the teacher and students do not need to be at the same place or interact at the same time. There is a separation in distance and time, implying that a student in country can easily study course materials prepared by teachers in another country. Therefore ODEL has become more convenient now a day, because large number of people who ordinarily might have been denied access to formal education is able to have education in their chosen time and place. As an emerging alternative system ODEL even represents veritable means of expanding education without the monumental capital investment required for new structures. Moreover, the present inadequacy of facilities and infrastructural decay in the conventional system as well as the increasing pressure on the available educational resources make the ODEL system relevant to postgraduate agricultural system in BAU. In this regards it has been identified as some of the benefits associated with open and distance learning system:

- **ODEL enhances educational environments at less cost than under the traditional resident campus system.**
- **Greater flexibility in the design and delivery of curriculum content than is normally associated with classroom teaching, enabling distance learning courses to adapt to the specific students' needs or work requirements or greater relevance.**
- **ODEL accommodates the growing demands for life long learning more easily than do traditional school settings.**
- **It opens the doors for those otherwise denied opportunities to quality education.**

Under the new millennium context resurgence of global interest in web-based ODEL has been proved to be potentially useful strategy for human development issues, particularly due to the evolution of fast-growing as well as net-working new Information and Communication Technologies (ICT). The study reveals though ODEL has been found widely used in many reputed and world leading universities in UK for higher studies offering postgraduate degrees (MSc), Diplomas and Certificates on arts, general & environmental sciences and commerce subjects, and especially the trainings for professional developments etc. its application in higher agricultural education and training leading to MScs and PhDs is almost scanty except a few cases of Fisheries and Livestock, section of Agriculture in the Universities like the University of London (Royal Veterinary College), University of Sterling, University of Edinburgh etc.

Status 0f Post Graduations in Agricultural Education In Bangladesh

There are six Agricultural Universities namely Bangladesh Agricultural University (BAU), Bangabandhu Shaikh Muzibur Rahman Agricultural University (BSMRAU), Shere-Banglanagar Agricultural University (She.AU), Haji Muhammad Danesh University of Science & Technology (HMDUST), and Potuakhali University of Science & Technology (PUST) presented in Table: 1. Among these, only BAU estd. in 1961 is the parent University having the largest capacity of graduate and postgraduate programmes in conventional methods.

It may be mentioned that before 1998 BSMRAU was the Institute of Postgraduate Studies in Agriculture under Bangladesh Agricultural Research Institute (BARI). While the other three- Sher.

AU, HMDUST and PUST had been the BAU-affiliated agricultural colleges dealing with only bachelor degree programme of a single faculty of Agriculture now emerged into independent universities since 2001 and still under incapability of offering the postgraduate programmes.

Table: 1
Present position of students' enrolment at various Agricultural Universities in Bangladesh

University	Est. yr.	Faculty	Number of Teachers	BSc.Ag.(Hon Students	MSc Students	PhD Students	Remarks
BAU	1961	6	545	4572	1500	274	
BSMRAU	1998	1	65	419	78	-------	IPSA, BARI
Sher. AU	2001	2	131	1276	-------	-------	
HMDUST	2001	6	102	1139	-------	-------	
PUST	2001	8	67	758	-------	-------	
Sylhet Ag. Un.	2006	3	41	350	-------	-------	
Ct.Vet.& Ani. Sc.Un.	2006	1	48	336	-------	-------	
Sylhet Vet.& Ani. Sc. Un.	2007	1	--------	-------	-------	-------	
RU(Ag.Faculty.)	1953	1/8	73/1130	613	0/455	0/201	Since 1998?
Khulna (Ag. Deptt.)	1990	5	16/269	246	0/15?	-------	
BOU(Ag.)	1992	1/7	15/109	1737	-------	-------	B.Ag.Ed.

(Source: UGC of Bangladesh)

Sylhet Ag.Un. and Ct.Vet & Ani.Sc.Uni. are quite new, borne in 2006 each with a single faculty such as Agriculture and Livestock respectively.

Rajshahi University (RU) and Khulna University are the general public universities having a single faculty of Agriculture and a single department of agriculture respectively offering only the bachelor degrees. Bangladesh Open University (BOU) has a faculty of Agriculture and Rural Development offering the degree of Bachelor of Agricultural Education (B.Ag.Ed.) which is not even equivalent to the BSc.Ag. (Hons.) degree of other universities.

Bangladesh Agricultural University (BAU) stands for the only premier seat of higher education and research in the country offering Masters and Doctoral degrees in the various fields of Agriculture through the conventional system, but in a very limited scale to the context of greater need. Faculty wise passed out graduates from BAU have been illustrated in Table: 2.

It is revealed that up to July 2007 altogether 31018 students have been graduated out of which 21116 bachelors, 9,705 masters and 197 PhDs from the six faculties. Out of the total of 31018 passed out bachelors (BSc Ag.) till July 2007 only 31.29% masters and 0.64% PhDs have been produced in BAU (Fig. 1). It may be mentioned that the the total number of ongoing Bachelor students in the University is 4572 (UGC, 2008).

Table: 2
Faculty wise statistics of BAU passed-out graduates till July, 2007 and existing position.

Faculty	Bachelors	Masters	PhDs	Total
1. Agriculture	11698	5388	127	17413
2.Veterinary Science	2728	891	11	3630
3. Animal Husbandry	1583	881	15	2479
4. Agricultural Economics & Rural Sociology	1505	974	16	2495
5. Agricultural Engineering & Technology	1569	404	5	1978
6. Fisheries	1833	1167	23	3023
Grand total of the passed-ou graduates	21116	9705	197	31018

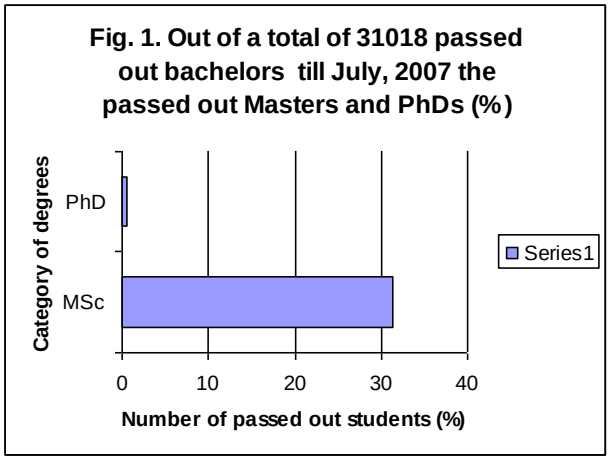

Figure: 1

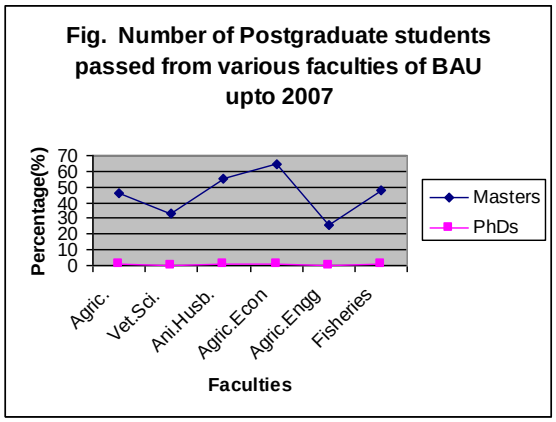

Figure: 2

Education is the fundamental aspect to any effective programme aiming to build quality of human life. It is recognized as the human right for all regardless of gender, race, age; location, socio-economic status, disability etc. and this can not be achieved only through the formal education. The UNESCO (1998) Declaration of the World Conferences on Higher Education (HE), Paris accepted the vision that HE is essential to participate in an advanced economy.

The economy requires an educated workforce and trained individuals who can only profit from such an economy if they are equipped through education and training to respond to its demands (Hope, 2002). The conventional system of education has its own limitations as regards to expansion, access, equity and cost-effectiveness along with lack of sufficient infrastructure and facilities for providing education and training at all levels in Bangladesh. While open and distance learning (ODL) extends learning opportunities to the people of various levels in the society and supports professional development to keep abreast of current topics as well as scientific and technological advancements. This is because of the progress of micro-electronic correspondence, satellite tele-communications, ICTs, computer e-mail and internet system etc. The learners or students remaining at a distance may have already been enabled access to the updated knowledge bank and desired information industries without any delay and setback through such transmission media of communication, or in other words, the academic institutions and the educationists have become easily standby available within the range through the system.

One of the most significant divides between the world's richest and poorest countries relates to the amount of schooling a child can expect to receive. A big part of this difference is due to the provision of tertiary education (The Haves and Have-nots in Tertiary Education, UNESCO 2005). And Without more and better higher education developing countries will find it increasingly difficult to participate in, much less benefit from, the global knowledge-based economy.

There notable exceptions but currently, across most of the developing world, the potential for higher education to promote development is being realized only marginally. There is an urgent need to build capacity in these countries and all of us need to play our part (Brenda Gourley, 2007). However, as regards to the knowledge economy there exist a big gap between developed and developing countries.

The contemporary more efficient, cost and time effective learning models of ICT-based ODEL may have the significant value to bridge the gap.

Policy and Practice

Strengthening the capacity for need-based proper education, research and training through the postgraduate relevant studies, improved policies, technologies and resource management are essential to achieve the appropriate agricultural sustainable growth and food security for ever increasing requirements.

Bangladesh has recently been connected to the information super-highway through submarine cables. As a result, along with BTTB private companies already could ramify their ICT-based business orientations in different sectors like banking, transportation, administration etc. The use of computer and the long-ranged, portable electronic device with the telephone and the cell phone networks are widely used now a day.

Under the circumstances, for better and progressive existence in the competitive global context it should be concentrated on its special attention to the ICT-based ODEL as a pragmatic focal issue with a view to transforming the increasing vast potential agriculturists into more productive force.

The study evidences that there is an ample paradigm shift towards ODEL system in providing accessible postgraduate agricultural education in Bangladesh. On the basis of study on ODEL ongoing programmes at different Universities the following strategic policy and practices have been recognised to be recommended to the concerned authority.

- **The course materials for the students must be bespoke, having been developed for the ODEL mode, and are not simply a course that provides material on the web. It ensures that the students enjoy the same high quality teaching environment and exposure to innovation as the students on campus-based courses.**
- **Development of highly skilled special academic as well as administrative expertise for the ODEL-based postgraduate programme in agricultural education.**
- **Development of adequate students' supports and facilities along with valid accreditation of their degrees.**
- **For high technology and innovation as well as need-based action researches, global partnership development programme should be initiated. Because, the anticipated deliverables from the developed countries to this ends stand for commendable privilege and incentives for the concerned students as well as professionals to continue their higher agricultural education, research and training leading to post graduation degrees without living their jobs and homes.**

Thus BAU can go even beyond the boundary of the country with its high quality ODEL, especially Asian countries and the South Asian neighbourhood in particular but requires a strong need for an international intervention in planting the 'ODEL seed' into the conventional system in Bangladesh. It may be mentioned that a collaborative distance education (M.Sc.) programme in the field of Aquatic Resource Development has already been initiated since June, 2006 by the UK Govt.'s Dept. for International Development (DFID) and linked between the Univ. of Sterling, UK and BAU.

The world leading universities like The Open University and University of London (Wye) who have their huge logistic supports to many developing and under developed countries, may have a tremendous opportunity to establish such a collaborative programme with BAU.

The most strategic entry point under the programme may be towards offering MSc Ag. Degree, the number of which is very significantly insufficient in proportion to the BSc. Ags. (Fig: 1). However, Open, Distance and E-Learning seems to be the most effective ICT-based global mode of imparting contemporary education at all levels especially for those who cannot afford to continue their institution-based face to face conventional system of education due to various constraints. Like other developed countries it is gaining substantial popularity and rapid net-working in the South Asian countries especially in the South Asian Association for Regional Co-operation (SAARC) region.

For ODEL provides comprehensive learning scopes in general for the need-base personal development as well as upgrading the individual's status in household occupation, agro-industries, transports, storages, communications and other enterprises such as co-operatives, rural development, banking sectors, office management etc. and other professions.

To understand and improve the application of ODL strategies to the challenges of agricultural development and rural poverty reduction a project work was carried out in five institutions in Asia and the Pacific and documented innovative or exemplary practices in open and distance learning for agricultural development and rural poverty reduction. It has been suggested that: ODL should: be undertaken for the right reasons, be sensitive to the context in which it is being applied, make use of existing infrastructure with sustainable cost structures, engage stakeholders in participatory processes and use sound pedagogical and administrative models.
(Alexander et al., 2006).

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RECOMMENDATIONS

- **BAU authority and the concerned policy makers in the country should have a rethink on the current practice of spending virtually all the financial allocation to tertiary institutions for the sustenance of the conventional education system which has not yet been able to meet the needs of candidates seeking admission into the university for the postgraduate agricultural education.**
- **In order to ensure that the quality of products and service delivery in ODEL are of acceptable standard, there is the need for institutions offering distance programme to have good administration of the learning, assessment, monitoring and evaluation processes to ensure quality control.**

Partnership Needed: Technical Assistance in Implementing Postgraduate Agricultural Education and development of ODEL Infrastructure with New Instructional Delivery Methods and Materials.

CONCLUSION

The ODEL system may relieve the enormous pressure on the conventional system especially in the postgraduate level. Besides, ideally for the adult education curricula should be delivered in multiple media, allowing the learner to take advantage of the variable times, media, and learning style options. There may be the inherent problems from different angles such as unrest, natural calamities, disruption of electricity and internet network etc.

But instead of those obstacles ODEL may be followed as the only probable alternative for the said programme at BAU. The distance education may remain as an alternative to and supplement for traditional classroom instruction, not a replacement. In such cases the increased integration of web based in dual mode may occur with traditional learning.

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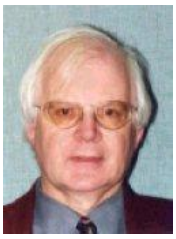

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COLLABORATION OF STAKEHOLDERS AS AN EXPANDED LEARNER SUPPORT SYSTEM FOR A DISTANCE LEARNER: The Case of Institute of Extra Mural Studies

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ABSTRACT

Learner support for the distance learner is one of the critical elements for effective learning. This support that is so essential is usually expected to come from the educational institution where the learner is registered. However, there is circle of support around the learner that includes among others the family, the community, and the work environment. These may in one way or another become a significant support for the distance learner. This study explored through some of the stakeholders within this circle ways in which all could collaborate in order to improve and strengthen learner support. The results affirm the importance of an extended circle of stakeholders and the need for both the educational institution and the different stakeholders to collaborate in order to promote learner support needed for distance learning.

Keywords: **Learner support, collaboration, opens and distance learning, Institute of Extra Mural Studies, Lesotho.**

INTRODUCTION

The Human Development Report defines development as a process to increase choices that people have in order to improve their lives. In particular, the report asserts that the purpose of development is "to create an enabling environment for people to enjoy long, healthy and creative lives" (UNDP 1995, p.11). In order for this to happen, people need to acquire knowledge, information and experiences and to access resources that would enable them to achieve development goals. The role that education plays in promoting an enabling environment has come to be accepted by the world.

As a result, governments, through various world bodies, are signatories to the conventions such as The Millennium Development Goals (MDGs), Education for All and others. Education is becoming indispensable today as the world is confronted with the scourge of HIV and AIDS and other diseases, the challenges of deepening poverty, ravaging wars and their devastating effect on citizens, the promotion of good governance and democracy.

In particular, citizens now realize the importance of participation in the development process to ensure that their rights are catered for. However, the empowerment in the form of relevant educational information is critical.

How does open and distance learning, ODL, come into this situation? The world now accepts that ODL is a viable complement and or alternative to formal education. ODL is relevant for all educational levels including primary, secondary, post secondary education and lifelong education. In particular, ODL plays an important role in opening access to education, in extending service at a reduced cost and in providing and promoting quality learning. Key to achieving these goals is the learner and the kind of experience s/he is exposed to. Such experience determines the success and quality of the product. These experiences mostly organized by learning institutions can be administrative, academic or social. However, other bodies outside the learning institutions also have a critical role to play in enhancing the learning situation. All of these experiences contribute to learner support system.

THE INSTITUTE OF EXTRA MURAL STUDIES

The Institute of Extra Mural Studies (IEMS) is the one organ of the National University of Lesotho (NUL) that promotes access to higher education through open and distance education. Although the programmes are to a large extent based on face to face tutorials and the use of print media, IEMS has managed to reach out to those who would not normally qualify for straight admission by employing the strategies of openness and the distance method. Openness here is used in its limited sense to indicate relaxing the rigidity in the conventional university admission criteria.IEMS admits mostly those high school graduands with third class pass and General Certificate in Education (GCE), the lowest high school leaving certificate. IEMS has in the passed opened access to mature students with three years secondary education level plus working experience into two year certificate level, after which learners would qualify for a two year diploma level.

Later all of the sub-degree level programmes were reviewed resulting with the facing out of certificate levels. The programmes were upgraded to three year diploma level. At the same time, the part time mode has allowed working adults as well as those far removed from the head quarters to attend classes during specified weekends or after work hours. The programmes offered are at diploma level in mass communication, business management and adult education and also a four year degree in adult education. The beginning of the academic year 2007/8 has seen the start of two new programmes. The first is a four year degree, bachelor in business entrepreneurship (BABE), the second is a three year masters in adult education (M.Ed.). All of these programmes are part time in nature and are all operating at varying levels of distance. All of the adult education programmes are more distance in that there are fewer face to face sessions, they utilize the print media in the form of ODL modules for diploma and first degree, and ODL prepared readers for the masters programme.

Preparation of ODL material for the BABE has already started but in the meantime regular textbook material is being used. It is envisaged that all of the programmes at IEMS will be offered through ODL. The NUL has completed its strategic plan for 2007/2012 and has started implementing it.

Its first strategic goal is to improve access to its programmes. One of the key outputs to this objective is that there will be new programme offerings at IEMS. In order to achieve this, IEMS is mandated to introduce an ODL strategy so that more students can access university education. This tall order poses a number of challenges including shaping up of old programmes, introducing new programmes, learning materials, capacity building, facilities, human resources, learner support services etc.

This paper looks anew at the critical issue of learner support. Learner support has become a major concern especially because these new programmes will run on a more distance mode, with learners taking more responsibility and with fewer face to face sessions. At the same time, stakeholders for the IEMS programmes will tremendously increase and will include among others, the learners themselves, their families, the employers, the industry, the communities, the facilitators, the tutors etc., the list is endless.

In what way do these stakeholders play a role in the learning process of the learners? In what way can each facilitate such a learning process? How can IEMS facilitate a meaningful role for each of these or some of these stakeholders to play in ensuring a fruitful and successful learning process for the learner?

WHO ARE THESE LEARNERS

The learners at IEMS are quite varied, by age, gender, working experience and status, and adult responsibilities.

The programmes of mass communication and business management are mostly subscribed by younger learners, mostly o-level school leavers. We talked to a number of them at random, and most indicate they would have preferred to be in a regular university attending full time conventional programmes. The following was a response from one learner in her second year of diploma:

I really took IEMS as the last chance, but I really wanted to be at NUL so that I can stay in the university and experience independence. There I think I can study better because the library is there, I can get the Manpower (bursary) and also the teachers are always there and the campus has security. But here, you are on your own most of the time. Here even the Government does not know we exist and that we have a right to get scholarship like other Basotho. You will think my parents are not paying the tax! But at least I will get the diploma so I can go to South Africa to do my B.Tech.

Most of the younger learners really lamented that they are in the part-time programme. However, the older learners, who are mostly in the adult education programmes had different views. Most of them are already working, most are married and families.

Some of them are returning learners who are looking to improve their qualifications so that they can upgrade their status. Others indicated they needed these qualifications for promotions while others were preparing for career paths. We talked to a gentleman who was already occupying a relatively good position, he asserted;

In the two years I have been doing my studies, I know that I have to continue, I feel so motivated to study more. I have met people who are equally motivated, we study together, we support each other.

Everybody accepts me as I am, they don't think I am stupid, I am not afraid to say 'I don't know, ' it is such a friendly place to study. Even though I have to sacrifice to pay my fees, I think it is worth it studying here. At work I feel very confident, I can talk to colleagues and I can handle challenges. You know, I even (please help to delete this space)share some of the ideas with my wife. I am looking forward to moving into the masters programme in the same way.

CHALLENGES FACING IEMS LEARNERS

While there are rewards after the various programmes, learning at a distance poses special problems for the learners. Some of our learners come from the rural areas where schools/centers are very far from their villages. They travel long distances to come for tutorials. The mountainous terrain makes some areas inaccessible by road. Such places may not have access to radio, telephone and electricity.

In some cases, it means that learners, especially those who attend evening face to face sessions, have to rent places close to the centers. This becomes and additional expense as well as a potential security threat especially for girls. Recently Government stopped sponsoring part time programmes such as adult education and mass communication, on the basis that they are not within government priority areas of sponsorship. The only programme in which learners receive Government bursary loan is the business management.

As a result, in the other two programmes learners struggle to pay for their learning commitments. Implications are that, some learners fail to be regular for f2f tutorials because of various financial commitments. Attending f2f tutorials is also a challenge for those who are employed and are not given leave of absence. Although there is a policy to allow employees in government service time to study on part time, the implementation of this policy is still poor.

Most learners are also not aware of it. For those who work for private or for non-governmental organizations, getting time off for study depends on whether such study is within the organisation's staff development plan or just on the employers' goodwill. We have often come across situations where learners tell us that they do not want their employers to know that they are studying, that it may prejudice their studies.

Low self esteem is another major problem among learners (Dzakiria 2004). This is because of the attitude that still prevails that distance education is of inferior quality to the conventional programs.However, the closer the learners get to graduation, the more self confident they become, especially when they realize how much they have grown academically and the challenging assignments they play both at work and in communities.

The other element is the patriarchal nature of our society and its practices poses special challenges especially for the women, who are the majority of our learner population. Women have community roles to take care of the sick especially today in the face of the HIV and AIDS pandemic, and other community responsibilities like feasts, funerals and many traditional activities. Community members do not understand why these women do not take up their responsibilities as expected.

Usun (2004) also observed a similar factor, the socio cultural context as playing an influencing role in the lives of learners. It is important therefore to take these into consideration as learner support systems are planned. Many of the learners come to IEMS with conventional education experience from primary school and secondary/high school. They have been exposed to a learning culture of full time f2f, teacher centered methods of learning and in general, a situation where a learner is dependent on the teacher. As a result learners need to be equipped with skills to be independent self-directed learners.

LEARNER SUPPORT

Learner support within ODL has received a lot of attention because of its centrality for promotion of successful quality learning for the distance learner. It has been classified in many ways. Dillon and Blanchard (1991) for example, present four types of learner support system. First is support based on unique learner needs largely influenced by the learners' background? Second is learner support and content, third is support provided by the institution to facilitate the learning process and finally is learner support and technology, its quality and its consistency of availability. These systems have provided a guide which institutions usually put into place to steer their learner support.

Harrington, Laster, Stennet, and Cornwell (2004) have used a model of learner support that comes from the work of Cornwell (2000) that puts learner support into three categories. The first category refers to academic support, access to all information required for academic work including availability and responsiveness of faculty. The second category is practical learner support related to practical help on learning, personal assignments etc. The last category is the emotional support that learners receive especially from others like family. Harrington et al. have used this model to develop a Learning Support Needs Questionnaire (LSNQ)) for diagnosing students' needs. One of the critical points their study makes is that most of the work in this area tends to focus on what faculty can do to promote learning and that there is little emphasis on what the learners' needs for learning are "in order to help students to diagnose their own support needs and therefore develop their own strategies for dealing with them" (p.9).

However, it is also true that learners, especially in the situation of ODL in Lesotho, still need the facilitation to support them to develop their learning strategies. Learner support and learner needs are therefore taken as two sides of the same coin, mutually complementary. The Association of the Development of Education in Africa (ADEA) Working Group on Distance Education and Open Learning (ADEA, 2002) conducted a comprehensive literature survey in ODL policy and practice. They emphasize the critical role that learner support plays in the success for ODL programmes.

Their classification of learner support is also in three categories. First are services related to teaching and learning needs; second are services related to access and information process and needs; lastly are services related to social and personal needs. Classification of learner support therefore depends on angles or approaches taken. Learner support may also be taken as learners needs. Support to be given in order to meet these needs can be categorized as that each is;

- **directly related to the academic programme and learning,**
- **related to the process-facilities etc. and**
- **related to the personal like counseling, motivating, urging on. A lot of work has been done on what support is required for academic aspects; this is especially done at the motivational level and takes the various forms of support such as registration, getting materials, contact with facilitators, getting feedback, writing examinations.**

While a lot more has been done on the first two areas, work related to some aspects of personal needs still has to receive more attention. Here we talk about the kind of support a learner needs as a person at institutional level and beyond. Dillon and Blanchard (1991) talk of unique needs like motivation, confidence, financial difficulties, adult learners and learners with disabilities. Harrington et. al. (2004) refer to help with house work, child care, emotional support, tolerance, emotional reassurance etc; while ADEA (2002) add aspects of peer support and study groups, career guidance, social events and language problems. In what way can IEMS as a training institution collaborate in order to address some of these needs, especially those at the personal level? This study aimed to contribute to this debate through looking at how collaboration for learner support can be expanded to include a number of stakeholders especially beyond the institutional level. Again the study explored ways in which such collaboration can contribute to an effective learning experience for the learners.

COLLABORATION FOR LEARNER SUPPORT

Collaboration in ODL is a pillar in helping providers realizes their goals to promote access at reasonable or low costs and high quality. The concept of collaboration has been explored at length. Indeed, as Perraton (2004) clearly indicates "much open and distance learning, at all levels of education, has been built on collaboration between partners" (p27). Collaborating partnerships have been formed at institutional, national, regional and international levels. The Distance Education Association of Southern Africa (DEASA) is an old form of collaboration done at a regional level.

Here members collaborate in terms of materials sharing and development, sharing of experiences, exchange of programmes, research, capacity building etc. DEASA is now extending its wings into the whole SADC region and opening wider areas for collaboration in order to improve on ODL offering in the region. Whatever level that collaboration exists at, it requires commitment, a clear understanding and meeting of minds for success and mutual benefit. Perraton (2004 p31) proposes the following as pillars for successful collaboration:

- **Clear goals and clear statement of purpose**
- **Significant roles for administrative and academic staff in all member institutions**

- **Governance and funding structure that fits the purpose**
- **Members of a partnership need to see that they have complementary roles and there are benefits to all**
- **Commitment of resources from all partners.**

RESEARCH APPROACH AND METHODOLOGY

This paper presents results of a study undertaken at (IEMS) on the collaboration efforts to promote learner support. The study was conducted as preliminary to a larger research. Initially a small number of stakeholders which included ten former students, six part time lecturers, four educational institutions and four employers was interviewed for the purpose of presenting the study to the conference. Later the sample was increased to double the numbers for all categories. The purpose was to explore the views of the stakeholders on learner support for the promotion of learning and whether through collaboration with various stakeholders learner support can be improved and strengthened. This study employed a qualitative design, which utilized interviews to collect data. Focus group interviews were conducted, one for past students and one for part time lectures. Employers and educational institutions were interviewed individually. The various qualitative responses including sharing of experiences were recorded and analyzed into themes and sub themes guided by the research objectives.

Research Objectives

It is assumed that stakeholders' collaboration has a great potential for improving learning, teaching and research activities and can strengthen existing learner support services. The objectives of this study were to:

- **Identify the views of participants on collaboration in learner support**
- **Identify possible areas of expanded learner support.**
- **Identify strategies for improved stakeholders collaboration in learner support**
- **Explore areas of collaboration between IEMS and various stakeholders on learner support services**

FINDINGS

Findings of this study cover views from various stakeholders. Common themes that were recorded are extended learner support, areas of collaboration and attachment.

Views about Extended learner support

Learners

- **Learners felt there is a need for more networking and collaboration between learners and tutors, learners and administrators, learners and other learners during and after study period.**
- **Printed materials are the strength of learner support, there is need for IEMS to have more written materials for all the programmes.**
- **Improvement of library facilities and addition of more relevant and up-to-date reference materials.**
- **Improvement on IT in all the centers to enable access by all learners and tutors.**

- **"Sometimes it is personal needs where we need support, counseling, a listening ear, comfort and understanding." This was a view echoed by all learners.**
- **Education is not only about learners but affects families, employers and colleagues, communities etc., all should form part of learner support.**
- **If we can be given recognition and be accepted this will be great motivation**
- **Women are majority of learners, they need to get more support**

Employers

- **A policy that supports learners through study leaves already exists. What is important is to ensure that there is proper implementation.**
- **Employees and employers should work together, with no secrets kept about studies.**
- **There should be meetings between employers and educational institutions to discuss what skills are required and how to support each other.**
- **There is no clear understanding of how IEMS works and programmes like adult education are not understood by many.**
- **We need to give learners some time for studying during working time**
- **Learners should also show their commitment to earn the support**
- **We should be a learning community around the learners, their learning affect everyone around them,**
- **Learner support should come from all who are connected to the learner directly and indirectly**

Views on Collaboration

There seemed to be agreement by all stakeholders that collaboration with educational institutions would benefit all concerned.

There are indirect ways of collaborating like participating in each others events, sports, celebrations, conferences etc.

This is important and promotes understanding and good relations among institutions. IEMS should show goodwill where it has skills that could benefit other institutions, whether these are paid for or given gratis.

Collaboration should be reciprocal not just one way. Other views follow:

- **Culture of volunteerism should be encouraged among learners.**
- **Volunteer services open channels of communication between the employer, the learner, and educational institutions. It allows for sharing of experiences and skills and contributes to a learning culture in communities.**
- **IEMS should share its programs and involve employers in plans for new ones and in the review. Curriculum would be improved, be more practical and relevant to the developmental needs of the country.**
- **Other employees would be motivated to learn and that would lead to and promote learning communities.**

- **There should be collaborative research in the areas of policy studies, development, advocacy, and action research**
- **Relevant stakeholders be invited for learners research supervision to ensure relevance to development**
- **Sharing of technological resources.**
- **Business people advertise themselves through IEMS for a fee**
- **IEMS collaborate with others for teaching and for transfer of credits**
- **Institutions could collaborate for formulation of ODL policy**
- **Such collaboration could be extended through national associations.**

Attachment

All interviewees who were not employed expressed the same passion about the issue of attachment. Their observations were that if well planned attachment could:

- **Help learners get hands on practice and exposure in working with communities**
- **Get opportunity to market them.**

A number of participants felt that employers could:

- **Benefit by having free, extra and willing hands to do the job.**
- **Connect with the university through attached students.**
- **Contribute in the development of the materials and curriculum because they will be involved in the learning process**
- **Where possible share resources with the university to improve learner support.**
- **There could be short and long term collaboration depending on the agreed model.**

DISCUSSIONS

As literature and experience has shown, the issue of learner support is very critical especially for distance learners. This study set out to assess how the usual institutional learner supports system can be strengthened taking into consideration the IEMS learners' special circumstances. Can a learner's circle of support in the family, among friends, at work, in the community become part of the expanded learner support collaboration? Does an educational provider have responsibility to foster collaboration of various stakeholders in order to build up an expanded learner support? Who are the potential collaborators? In what way can such collaboration contribute to an effective and supportive learner support system?

These are some of the questions that this study has tried to respond to. This study on collaboration of stakeholders for learner support at IEMS has raised some key issues regarding learner support on the one hand and collaboration on the other. While in the first instance learners and tutors were interviewed separately, the findings seemed to be complementary in the kinds of issues that were identified as critical.

The educational institutions also seem to be in agreement about strengthening the facilities within institutions and encouraging collaboration in order to benefit from each others' strengths.

The fact that the major source of funding for education is the Ministry of Education and Training, is very important and should be taken as the raison d'etre for collaboration in all matters relating to ODL.

It is important that ODL institutions in Lesotho should also find a convenient model that can be used in order for all to pool resources and collaborate in offering the required learner support.

Employers and educational institutions should also collaborate for mutual benefit, the capacity building of the employee and learner, the common human resource. Some of the ways in which employers can collaborate with educational providers for learner support include financial sponsorship, time to study, facilitating practice, offering opportunities for attachment, providing counselling and mentoring etc. These are at the heart of the problems that learners experience and in many cases contribute to attrition.

On the other hand, educational institutions can offer their skills and services in terms of participation in boards, offering short term training, participating in ways that can help add value to work and industry.

Collaboration for learner support may also come from families and communities. Distance learners feel isolated from the communities and families because their time outside work is spend in school work. Very often they miss on social activities like funerals, weddings and feasts, they feel like outsiders (Yum et. al. 2005). On the other hand, they need the understanding and support of the communities and families.

CONCLUSION

From the results of this study we conclude that beyond the direct support that learners receive from education institutions, there is also the indirect learner support provided by others, to facilitate an efficient learning process. As providers, learning institutions are strategically placed, and have a direct and moral responsibility to coordinate the various stakeholders for collaboration and strategic partnership that will foster the required learner support for the distance learners. It is hoped that such expanded learner support collaboration will also promote collaborative learning among the stakeholders and build a culture of learning in our society. The distance learners will no longer feel isolated but will play a central and active role in their environments while at the same time becoming active drivers of the learning process.

The results support the view that there is need for expanded stakeholders' collaboration to strengthen leaner support. There is consensus that expanded collaboration for learner support should not just be the responsibility of an educational institution but a collaborative effort with stakeholders around the learner.

From this study, no model has been established yet, but as Perraton (2004) indicates, collaboration requires commitment and a clear understanding of what is envisaged. We suggest that further research should be to explore how the model of collaboration for learner support by all ODL providers and also how volunteerism, attachment can be best organised and what other roles in particular can be played by families and communities in promoting collaboration of stakeholders for expanded learner support.

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OPEN COURSEWARE OPPORTUNITIES FOR ARCHITECTURE EDUCATION: Anadolu University ANAPOD Experience

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ABSTRACT

Today, in every field of our lives, an efficient information access and mobility has become a prerequisite for the sustainability of all systems. Considering this fact, Internet technology is the fastest and the most proper media to access the required information worldwide, from our daily questions to scientific researches. Within this rapid development, many Internet compatible applications have been specialized to ease information access and sharing. Hence, internet inevitably becomes the top asset for obtaining the inputs, sharing the information and marketing goods and services. Increasing demand for web based education services is also one of the reflections of this rapid development. Internet based education models integrated with computer technologies provide the best and most efficient conclusions for mass education. To meet the mentioned demands and needs, Anadolu University, has been providing higher education opportunities through distance education since 1982. The University, with over 1.2 million distant students, is one of the leading universities in Turkey and the world. ANAPOD application is a new education model within University's distance education process, which is highly applicable for many disciplines. In this paper, ANAPOD experiences for the architecture education will be discussed.

Keywords: **Open courseware, architecture education, distance education, Turkey.**

FROM TRADITIONAL EDUCATION TO INTERNET BASED EDUCATION (IBE)

The key concepts of today's information community are "to learn how to learn", "to learn how to choose" and "to know how to manage the necessary information". Depending on the changing conditions and growing technology, the main objectives of an education environment can be as follows:

- **To be able to handle increasing information sets,**
- **To ease education process,**
- **To encourage and develop participatory and individual education,**
- **To create efficient methods for developing and evaluating education.**

Based on the varying needs and living conditions, the participants (students, trainees etc) are no longer satisfied with a stagnant education environment. On the contrary, they mostly expect an active participation opportunity where information is individually assimilated and this expectation saddles the lecturers with new responsibilities. Besides, structuralism theory charges the lecturers with considerably more interactive tasks, while it also requires education activity to take place independent of space and time. Depending on these, distance education networks have become widespread. Distance education is mostly necessary to eliminate the space and time limitations for interdisciplinary postgraduate studies and education of lecturers. Thus, the borders between education institutes are removed, while information/resource accessibility opportunities become almost unlimited (Cabuk 2000) (Keegan 2006) (Mayadas et.all).

Since the internet was in use, accessing information in a global scope has become much easier. Besides educational resources in a wide range and varying quality could easily and freely be reached by people (Atkins, Brown & Hammond, 2007).The rapid increase in the number of Internet users motivated the growth of an enormously active web related industry.

The amazing advancements in information technologies, software sector and telecommunication field have also influenced the traditional education contexture. Positive features of the internet, such as easy and fast access and sharing opportunities, download and uploading capabilities, easy to find hardware and software requirements and utilization simplicity encourage the development of internet based education methods as well. In course of time, the use of internet as a teaching and learning medium became widespread and on-line serving of educational contents increased. Instead of communities who keep the knowledge under wraps but the ones who sharing it guide today's world.

For the sophisticated societies, sharing information is a component of their educational strategy. The fundamentals of open courseware materials and open educational resources grew in the context of the thought: "sharing the knowledge increases and develops the knowledge." With the assistance of technology, presenting a course in a digital medium makes the content available for teachers, students and anyone who is concerned. This situation also grows the competition between the educators and content developers that leads to increase the quality of educational resources (Yazıcı, Ozkul & Cagıltay, 2008).

Besides, these open accessible resources can give a chance for institutions to advertise (popularize) themselves free of charge and an effective way of supporting lifelong learning (Yazıcı, Ozkul & Cagıltay, 2008).

Today, considering the competition in the education field, the success criteria is mostly defined with the information transfer speed and the number of demanders accessed, who are not only the students but also the communities as large as possible.

Hence, traditional lecturer-classroom-lecture approaches inevitably undergo a change so that several lecturers specialized on different subjects come together to guide the students. Many students from many different places wish to access the lecturers and information materials at different places. The most proper way to handle this problem is creating an Internet based education (IBE) model. Besides overcoming the space and time problems, IBE provides universal education quality and accreditation of similar education programs. With an IBE, users can also have the opportunity to benefit from the experiences and knowledge of administrators and authorized personnel. Regarding these advancements in the field, development of Internet based education programs and related applications has become one of the most important research topics for IT experts and researchers for the last 20 years.

In this context, after the introduction of Internet in the early 1990s, IBE has been one of the most popular applications. However, the content in the 90s lacked audiovisual components. As the bandwidth of Internet backbone increased and peer networking technologies became widespread globally, 2000s marked the beginning of the audio revolution on the web. Voice of IP, MP3, Internet telephony and audio compression tools became buzzwords in the technology area. On the other hand, video-broadcasting technologies began to take momentum. MPEG and H.264 compression technologies became dominant in the video processing area. Year 2007 is known as the beginning of the mobile device era. Mobile units, such as iPhone, iPod touch, Microsoft Zune, Sony PSP are some of the successful devices that provide multimedia and Internet experience to their users. Traditional computer aided education models contain intensive inducements and are over individual-focused. Considering advanced Internet and intranet technologies, this traditional method is no more applicable. Today, new and different items are required for a modern education process. Within this process, the capability to distribute the lectures via Internet or intranet and making downloads possible any time bring great advantages. The research results show that, the method used to introduce the information is much more important than the tools. Consequently, it is essential to choose the right method for an IBE program to meet the needs of the participants. Comparing IBE with the traditional education methods, research results show that;

- **IBE participants can learn the same amount of information 30 % faster than the participants of a traditional education environment.**
- **During the traditional education, the elder participants can learn easily. However, learning speed is not influenced with age factor in IBE.**
- **Lecturers/educators tend to adopt traditional education methods.**
- **Audiovisual methods are effective for all participants.**
- **Communicational elements are not used as much as expected (Cabuk 2001, Cabuk 2004).**

The most important point while developing an IBE program is to avoid wrong web page development strategies and mismanagement of education sites, since these will definitely end up with poorly or never benefited education material and information. This is why; proper technologies should be applied for preparing the education material. Utilization of multimedia tools eases the learning for the participants.

At the same time, it is significant to consider the necessity to transform images, video clips and audio files in the education material into formats easily and rapidly downloadable even at lower speed networks. In this regard, image resolution, duration and size of the video clip and audio quality are important factors.

Another important point for IBE is the physical and social aspects of the education. Every single item must be covering the objectives of the education. Although utilization of technological capabilities is advantageous to make the education attractive and versatile, it is also risky. For a successful IBE, the target group must be well examined and then the frame and components of the model must be carefully developed according to this target group. Besides, it is important to consider that technology is never enough to overcome pedagogic problems. In other words, a distance education model supported with a "face-to-face" education from time to time depending on the characteristics of the target group may be more advantageous than the models, which are totally independent of space and time. Nevertheless, the digital images and films, online sharing opportunities and other technological capabilities are still very essential for a modern and efficient education. To overcome probable problems, lecturers and/or other authorized personnel must be able to determine the needs of the participants correctly and than designate the most proper solutions and tools (Cabuk 2001).

Regarding the mentioned opportunities and problems, researchers started to look for "easy-to-use and easy-to-learn" solutions for the lecturers with a very basic computer knowledge and technological equipment handle capability. In the search for a better system, Apple Corporation's newly introduced operating system, Leopard, was beta-tested in 2007 and realized that Leopard podcast server coupled with a storage system could satisfy all the requirements for a large scale lecture recording project.

The podcast producer, which is embedded inside the operating system, enables the user to capture the screen and other video resources in full motion, and transmit to the encoder system over a network enabled Mac computer. The material, after the encoding, is published in the blog site of the course. The Wiki technology eases the process of appending text material.

In August 2007, purchasing of Mac server cluster having a 28TB of storage was finished. In October 2007, when Leopard operating system was released, the server cluster is updated with the new operating system. By the end of 2007, 100 Mbps of Internet bandwidth was dedicated to the system. Several tests were applied on the system and bugs were resolved.

Open Educational Resources and Open Courseware

Open Educational Resources (OER) are the teaching, learning and researching materials. The term was first adopted in UNESCO's 2002 forum "On the Impact of Open Courseware for Higher Education in Developing Countries" which was funded by William and Flora Hewlett Foundation. It covers these three titles:

- ***Learning content: full courses, course materials, content modules, learning objects, collections, and journals,***
- ***Tools: Software to support the creation, delivery, use and improvement of open learning content including searching and organization of content, content and learning management systems, content development tools, and on-line learning communities.***
- ***Implementation resources: Intellectual property licenses to promote open publishing of materials, design-principles, and localization of content (Wikipedia, 2008).***

The idea of sharing course materials open and free to everyone via Internet was first propounded by MIT in 1999, while discussing how to use Internet better for student's education.

On April 4, 2001, the President of MIT announced that in the concept of a new program, which shall be known as MIT Open Courseware, the institute would publish nearly all of its courses freely available on the Internet over the next 10 years (MIT, 2001).

In the year 2002, MIT published pilot version with 50 courses including Spanish and Portuguese translations. Thenceforth, over 1800 courses in 33 disciplines were published by November, 2007 (MIT, 2008).

In 2005, MIT and other leading open educational resource projects such as wikis, on-line archives, formed the Open Courseware Consortium to broaden the impact and effectiveness of open educational materials, support new projects and develop sustainable models for publication (Wikipedia, 2008).

Today Open Courseware attempt is growing rapidly day-by-day. Over 250 universities, more than 3000 lessons are available worldwide, as from the end of May, 2008.

Although, there are many practices publishing the educational content open and free all around the world, Turkey has just engaged to this approach. The Turkish Academy of Sciences (TUBA) carried out the major attempt in Turkish higher education system (Yazıcı, Cagıltay &Ozkul, 2008).

Under the leadership of TUBA, National Open Courseware meeting was held on 23 of March 2007. 24 universities, YOK (The Council of Higher Education of the Republic of Turkey), TUBITAK (The Scientific and Technological Research Council of Turkey) and DPT (Prime Ministry State Planning Organization) attended this meeting. Later on, 25th of May 2007, National Open Courseware Consortium was formed with participation of 45 universities. At the end 2007 Anadolu University has started researching to develop its own materials. During the year 2007 basic facilities were developed and the preparation of course materials was started.

Internet Based Education Experience of Anadolu University

The idea of the project is based on asyncronized distance education experience of Anadolu University.

Asyncronized education can be defined as a training model in which lecturers and students are in different locations during the most or all parts of the education, or in which education is independent of place and/or time, or half dependent on place and/or time. Previously the asyncronized education programmes performed through audio-visual cassettes or communication devices. Nowadays this training model are transported to internet because of the advantages of the internet technologies. Internet aided asyncronised training models are given below:

- ***Fully independent of place and time*** **and totally performed through internet.**
- ***Fully independent of place and half independent of time*** **and lecturers and students are never in same location and students are trained using internet independent of time but lecturers answer the questions using internet relay chat during particular hours.**
- ***Fully independent of place and fully dependent on time;*** **this training model is performed through internet or video conferences, the lecturer and students are in diferent places but lectures are given by the lecturer on previously determined hours**
- ***Dependent on places and half independent of time;*** **this training model is performed with electronic discusions**
- ***Half independent of time and places*****, some parts of this model are face to face using traditional education models and some parts are asyncronized and place and time independent (Cabuk 2000, 2004).**

In 2004, Anadolu University started an initiative to produce lecture materials that are based on vocalized presentations. Due to high computational requirements of authoring software, the initiative failed to acquire a high adoption rate among lecturers. Moreover, additional time and skills were needed to prepare for the deployment of materials on web sites. Another approach was to capture class hours on the video using some of the professional staff who is in charge of preparing materials for the distance education programs of Anadolu University. A crew was formed to edit the video material and to encode with sufficient quality for the web. However, the production rate of the crew was not sufficient to record many lectures in a short time.

The experience showed that the system for the acquisition of class materials had to be done by the lecturer. Such a system should not require a high level technical expertise and can be run by a regular computer user. If a computer desktop screen is captured in full motion together with the sound input from a microphone, a sufficient recording environment can be satisfied. Recording can be accomplished on a computer, but encoding and publishing on the web should be automatic.

Anadolu University presented two significant projects in 2007. One of the projects was the "Yunus Emre Portal", which made more than a hundred lectures of distance education programme accessible via Internet all over Turkey. The second one, "Turkish Certificate Program", was also a web-based project including an education programme to teach Turkish language through the Internet the worldwide.

ANAPOD lecture portal project was first developed to provide an easy transfer process of any lecture material and activities of Anadolu University into the web environment easily. The address of the system was determined as "http://anapod.anadolu.edu.tr" (Figure: 1).

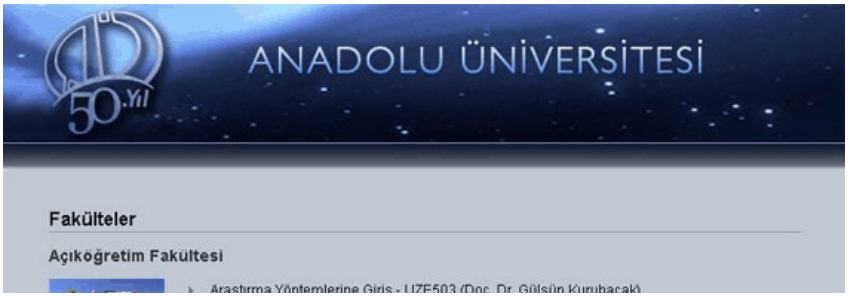
When the podcast producer system was stabilized after a series of patches released by Apple Corporation, a team of academic staff from various technical and social backgrounds was formed by the president of Anadolu University in April 2008.By courtesy of the technical infrastructure of ANAPOD project, lecturers recorded their lectures and other lecture materials with a laptop and transferred them into the website as an audio or video file easily. Blog and wiki technologies were used to present these transferred materials in the Internet environment. With the blog technology, which is also known as the Internet diary, the entire context recorded was illustrated on the blog page of the related lecture according to the date order. Wiki technology, on the other hand, enabled the lecturers to give lecture comments. A technical support team was also established to train the academic staff and manage the system. Two day training was held to get the team members acquainted with the MacOS operating system. A series of meetings were also organized to collect the requirements of the team, to assess the progress and to deal with difficulties. These meetings provided the list of required devices that can be used in the project as follows:

1. **A high definition camera with firewire connection**
2. **HD Visualizer**
3. **Professional wireless audio devices**
4. **USB omni microphone**
5. **Electronic board**

During the summer of 2008, team members prepared materials for eight courses. This pilot project has proven that ANAPOD project can be easily used to produce materials during class hours and course content can be enriched in a cumulative fashion. In October 2008, the University administration decided to extend the project scale and started a large scale initiative to use the system.To view the lecture contents on the website, Quicktime software is required. Itunes software is also necessary to enable the download. The list of lectures broadcasted within ANAPOD Project can be accessed from the main page. There are two different methods to view the lecture contents:

- **Directly via Quicktime software from AnaPod main page. The aimed lecture must be selected from the list on the ANAPOD main page to open the wiki page of the lecture. Then the link to the aimed lecture is clicked on either wiki or blog page (blog link exists on the up right corner of the wiki page) to view it with Quicktime software.**

Figure: 1
Anadolu University Anapod Lecture Portal



By downloading the lectures as podcast broadcasting via iTunes software. The aimed lecture must be selected from the list on the AnaPod main page to open the wiki page of the lecture. Then the blog link on the up right corner the wiki page is clicked. On the blog page, "subscribe in iTunes" link is selected for subscription to the aimed lecture. After this subscription, iTunes programme is automatically started.

Using the Postcasts link on the iTunes menu, subscribed lectures and related podcast subjects can be viewed. GET ALL links on the left of the lecture titles can be chosen to download entire podcast subjects. It is also possible to select only required podcast subjects by using GET links left to the subject titles. Once download is complete, the selected items can be viewed (Figure 2).

Figure: 2
Viewing lectures by downloading as podcast broadcasting via iTunes

ANAPOD Experience for Architecture Education

The main feature of the method given in this paper is its low installation cost and user friendly and efficient lecture material availability.

Anyone with basic computer knowledge can use the system easily.

The system may be either simply made up of a network and an Apple computer connected to the podcast server via this network, or equipped with more complicated multimedia software and hardware. Whichever it is, the system basically records and broadcasts any active image on the computer monitor.

The system established for the sample lecture explained in this paper includes (Figure. 3);

- **A Mac Pro hardware with WM Ware Fusion software and Windows XP running on a MacOS operating system,**
- **Podcast and Screen Flow software,**
- **A wireless microphone connected to the computer,**
- **Avervision visualizer,**
- **2 handy cams.**

a. Microphone system **b.Mac pro computer and cameras** **c.Visualizer**

Figure: 3
Equipment used for the sample lecture

Visualizer is one of the important tools required for the preparation of open education lecture material. There is a wide range of visualizers with different brands and prices. Avervision SPC300, Avervision SPB350, Canon RE455X, Pro Max DP550, Avervision SPB370 document cameras and visualizers are between 1500-2000 USD. VZ-7D / VZ-5F models of WolfVision are also considerable affordable. VZ-27plus / VZ-57plus models, on the other hand, are at higher prices, but they provide more professional solutions. Visualizers are used for the following purposes for the architecture education (Figure 4);

- **Examining the hardcopy student projects (Figure: 5),**
- **Broadcasting the project critics as online lecture material,**
- **Transferring the hardcopy lecture material into the computer environment.**

The main properties of the mentioned visualizers should be as follows:

- **Production of a very strong and stable picture**
- **Smooth auto iris and smart auto focus**
- **No blinding stray light from visualizer, (which could disturb the auto iris of the room camera),**
- **Special crystalline white working surface for perfect reproduction of transparencies.**
- **Attachment for slides (diapositives)**

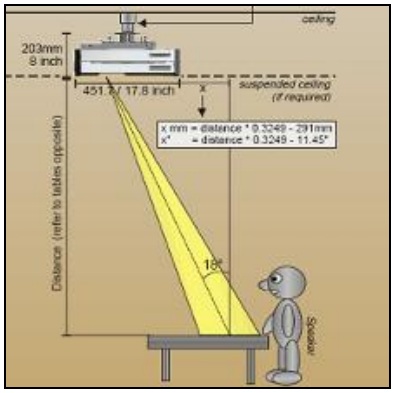
If the projects on the desks are to be directly transferred as the lecture material through Internet, then a ceiling visualizer is required. VZ-C12/VZ–C32 models of Wolfvision can be used for this purpose. Advantages of the Wolfvision Ceiling Visualizer series:

- **No unit on the table**
- **Objects can be easily moved anywhere on the table**
- **Visualizer can be completely hidden in a suspended ceiling**
- **Fixed installed unit can hardly be stolen**
- **No cables on the table**
- **Objects can be even larger and higher**

Figure: 4
Use of Visualizers

a.Visualizers used as documenting camera

b. Visualizers used for transferring the slides a online lecture material



c. Calculation of the distance for ceiling visualizer

Figure: 5
Screen captured image from the ANAPOD "Ecological Planning and Design" Open Course Materials (project examination using visualizer)

Another important hardware for examining the digitally prepared student projects is the tablets. These tablets are mostly at affordable prices (Figure: 6).

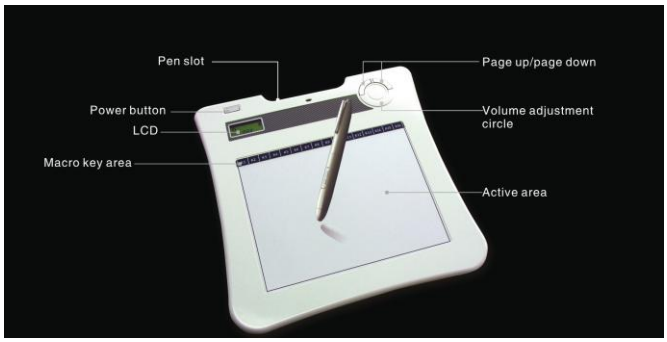


Figure: 6
Tablet

As explained in the previous chapter, the system has two components. The wiki page runs like a word processor. It is easy to use and contains various links and images (Figure: 7). The other component is the blog page. All the files transferred to the podcast server are automatically titled and presented on the blog page (Figure 8). In order to view the blog page lecture material and clips on the wiki page, the link line to the blog page lecture material on the wiki page is clicked. The following steps are realized during the preparation of lecture materials;

- **Every lecture material are attached on the wiki page,**
- **Helpful web links are given,**
- **Screen flow software is used during the preparation of lecture materials,**
- **Student project examination process are presented as online lecture material via visualizers,**
- **Lectures and project evaluation processes are recorded to be broadcasted as online lecture material**

CONCLUSIONS

The method and the tools explained in this paper provide an efficient and an easy-to-handle IBE environment for both lecturers and students, which also ease and expedite the application process of accreditation system for architecture education.

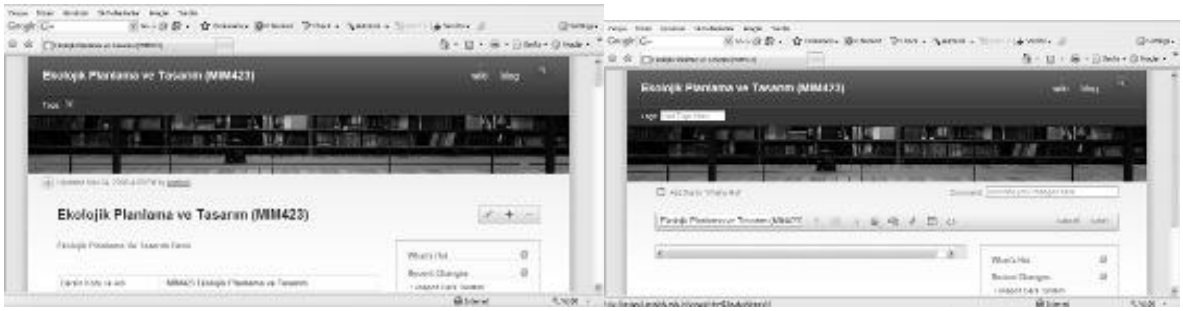
This system can be used during the accreditation progress of architecture departments in Turkey, especially for improving teaching ability of new architecture departments using open courseware.

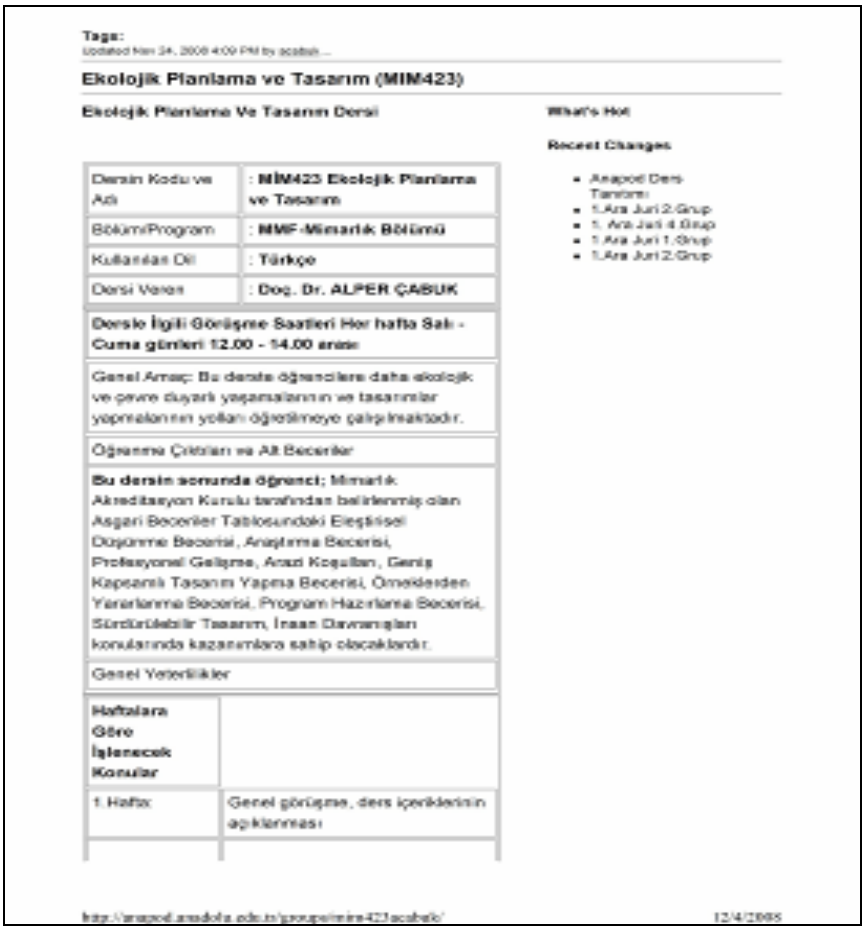
Without any difficult missions or burdens, whole lecture materials and project evaluations are shared online. Hence, the method discussed in this paper, is an important asset for the preparation and broadcasting of IBE lecture materials for the architecture schools in Turkey.

With this application, the sharing between the schools becomes more effective and so the education quality is increased in the country. The most significant feature of the system is its simplicity.

Anyone with basic computer knowledge can use the system. Compared to the fixed videoconference systems, mobile lecture materials can be more easily prepared with this method without the help of an operator or a system director.

The installation cost is considerably low and operations are easy.





Tags:

Ekolojik Planlama ve Tasarım (MİM423)

Ekolojik Planlama Ve Tasarım Dersi

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Dersin Kodu ve Adı	: **MİM423 Ekolojik Planlama ve Tasarım**
Bölüm/Program	: **MMF-Mimarlık Bölümü**
Kullanılan Dil	: **Türkçe**
Dersi Veren	: **Doç. Dr. ALPER ÇABUK**
Dersle İlgili Görüşme Saatleri Her hafta Salı - Cuma günleri 12.00 - 14.00 arası	
Genel Amaç: Bu derste öğrencilere daha ekolojik ve çevre duyarlı yaşamalarının ve tasarımlar yapmalarının yolları öğretilmeye çalışılmaktadır.	
Öğrenme Çıktıları ve Alt Beceriler	
Bu dersin sonunda öğrenci; Mimarlık Akreditasyon Kurulu tarafından belirlenmiş olan Asgari Beceriler Tablosundaki Eleştirisel Düşünme Becerisi, Araştırma Becerisi, Profesyonel Gelişme, Arazi Koşulları, Geniş Kapsamlı Tasarım Yapma Becerisi, Örneklerden Yararlanma Becerisi, Program Hazırlama Becerisi, Sürdürülebilir Tasarım, İnsan Davranışları konularında kazanımlara sahip olacaklardır.	
Genel Yeterlilikler	
Haftalara Göre İşlenecek Konular	
1.Hafta:	Genel görüşme, ders içeriklerinin açıklanması

http://anapod.anadolu.edu.tr/groups/mim423acabelo/ 12/4/2008

Figure: 7
Ecological planning and design lecture wiki page and page editing tools.

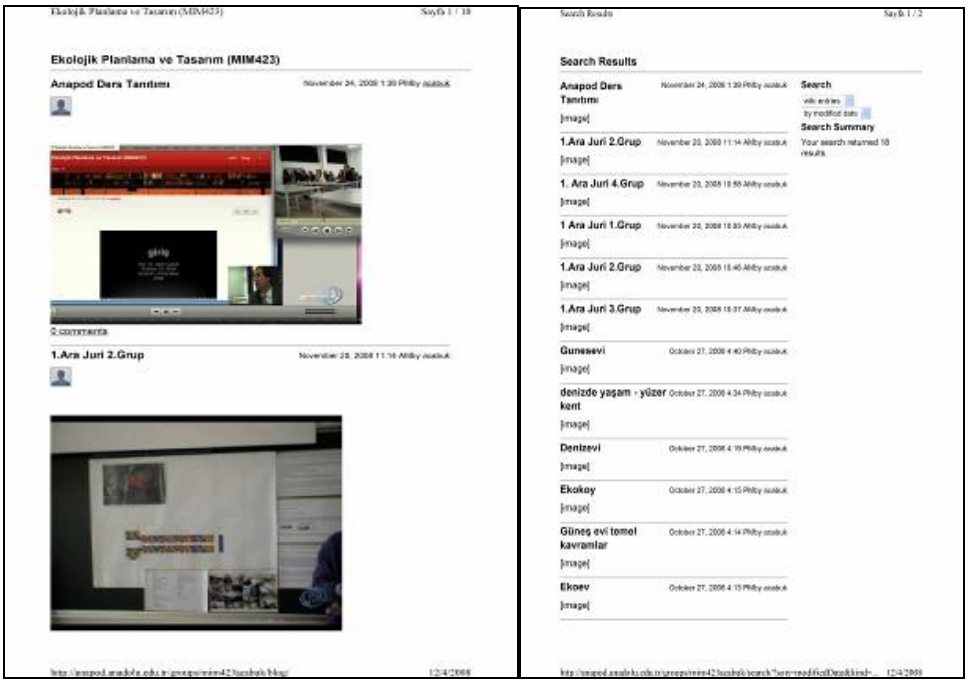

Figure: 8
Ecological planning and design lecture blog page

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CHALLENGES OF DEVELOPING ONLINE LEARNING IN HIGHER EDUCATION IN IRAN

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ABSTRACT

Online learning has now become an accepted and popular method of education for large numbers of universities in Iran, and now many higher education institutions are offering online courses to their students. The present study was carried out with the aim of investigating challenges to developing online learning in higher education. The study was based on survey research method and a questionnaire was developed to gather the data. The study population was postgraduate students (M.Sc. and Ph.D.) of different faculties in Tehran University who were selected by applying purposive sampling technique. The sample size for students was 152 persons. Data were analyzed by using SPSS/WIN software and descriptive and inferential methods were used for the data analysis. The results of the research indicated that three major factors explained 74.4% of variances of challenges to developing online learning. These factors were cultural/educational, technical, and financial challenges.

Keywords: **Online Learning, Student, Higher Education, Challenge.**

INTRODUCTION

With the rapid development of technology, educational processes have undergone many of changes during the last century. From print learning materials mailed to students' homes, to educational radio broadcasts, to educational television programming, to recent forays in interactive Web-based e-learning, ongoing technological changes have been reflected in the evolving role of teachers and students in the learning equation. Technological changes – particularly Web-based e-learning technologies–have resulted in new curriculum design and teaching strategies, new and emerging organizational structures, and it has even transformed learning itself (Jamlan, 2004).

Online learning is becoming a commonplace practice for delivering coursework to students enrolled in higher education programs of study. As technology advances and student enrollments increase, many universities are exploring the use of on-line instruction to meet the demands of students who prefer or find it necessary to take classes at a distance (Bangert, 2004). New communication technologies, particularly the Internet, appear to offer exciting possibilities for overcoming geographical access and cost barriers to learning.

Online learning is the use of Internet and digital technologies to create experiences that educate fellow human beings (Horton, 2001).

Online learning was born during the dot-com frenzy, and the term "online learning" was not well known until a few years ago. But now the term is common, especially in the University community (Bose, 2003). There are several cogent reasons for adopting and implementing online learning into educational systems:

- **The growth of information technology: online learning has become an ideal delivery vehicle for education and learning.**
- **It is information rich: online learning offers both teachers and learners access to any where, any time "information rich" resources.**
- **Alternative learning strategy: online learning can reach those previously denied access (e.g., students with physical disabilities).**
- **Blended learning: online learning can augment traditional classroom offerings, thereby freeing up valuable resources and expanding the offering to greater numbers of campus-based students (Spender, 2001).**

Online learning in Iran is in its maturity stages and large numbers of universities are offering online courses to their students. Students in University of Tehran use internet and online learning tools very frequently for doing their daily tasks. For example they communicate with their teachers and other students and complete their assignments and homework. They should also select their courses electronically by using university enrolment system. In addition, some courses are being offered fully online.

In spite of ever-developing online learning in educational systems, there had been challenges in this regard. What makes a learner successful in an online environment? What creates barriers or challenges? Answers to these questions, among others, gain increasing importance as Internet technologies become more readily available and accessible, in formal and informal contexts(Hofmann, 2002). Many researchers have tried to describe challenges of developing online learning according to their experiences and point of views. In Petrides' study (2002), some participants reported they felt a lack of immediacy in responses in the online context in comparison to what could typically occur in a structured face-to-face class discussion.

This appears to be especially obvious in asynchronous online discussions when students have to wait for others to read and respond back to their bulletin board posting or e-mail messages. Woods (2002) stated that online learners reported feeling isolated from faculty as well as other learners in the online courses they had taken. Many participants in Lyian Song et al (2004) research said that lack of community, difficulty understanding instructional goals, and technical problems were challenges in their online experiences. Abdon et al. (2007) cited that relative and absolute higher cost of Internet access, most often as a result of misguided telecommunications regulations; discourage the development of Internet-access service in developing countries. Ng (2004) stated that the handling of participants' communication anxiety is a very significant issue. Real-time interaction requires immediate responses, which may make students anxious; and anxiety can also be caused by delays in replying to messages.

In-depth clarification of academic issues also seems difficult in real-time interaction. Moreover, spontaneous responses can be problematic for some students as the opportunity to participate may be lost if the pace of the discussion moves too quickly.

Marino (2000) discovered that some students experienced difficulty adjusting to the structure of online courses, managing their time in such environments, and maintaining self-motivation. Hara and Kling (2001), conducting a study of online courses, found that feelings of isolation were an important stress factor for online students. Students reported confusion, anxiety, and frustration due to the perceived lack of prompt or clear feedback from the instructor and from ambiguous instructions on the course website and in e-mail messages from the instructor. Hillesheim (1998) reported that students not having the time, experience, and ability to learn the appropriate technological functions, or access to the necessary equipment are barriers for developing online learning. Betts (1998) concluded that among the reasons that faculty members were not involved in distance education were technological issues. Logan et al. (2002) investigated college students' experiences in an online course of electronic information sources and found technical difficulties were frequent barriers to student learning. The authors classified online communications into four categories of content, logistical, technical, and evaluative comments. About 22% of the students' questions were requests for solutions to technical problems. Ng (2007) said that the technical challenges of using new learning tools in synchronous online learning should not be overlooked.

The above efforts on challenges of online learning were just a few ones cited often. However, there have been more efforts in the literature (Anstead et al., 2004; Shea et al., 2005; Nordheim & Conners, 1997; Zhang et al., 2002; Wilson & Moore, 2004; Murphrey & Dooley, 2000; Grant, 2004; Petrides, 2002; Vonderwell, 2003; Lieblein, 2000; Jung, 2001; Alston et al., 2003; Miller & Miller, 1998; Miller, 1997).

The primary goal of conducting this research was to examine challenges of developing online learning in higher education in order to gain better understanding of online learning problems in educational systems.

METHODOLOGY

This study was based on survey research method. Participants of the current study were postgraduate students (M.Sc. and Ph.D.) of different faculties in Tehran University who were selected by applying purposive sampling technique. In this technique, sample elements are selected because they are believed to be representatives of the population of interest and are expected to serve the research purpose of the study (Churchill, 1991).

We chose the students who were using Tehran University database and email regularly and also had utilized university enrolment system at least twice from the beginning of their education in the target departments. So, 152 students (M.Sc. and Ph.D.) were selected as a sample of this research.

The questionnaire used for data collection consisted of 2 parts:

- **personal and demographic characteristics of students and**
- **a scale to measure challenges of developing online learning.**

The scale included 22 items. For each of the items, students were asked to provide a response based on a 1 to 10 scoring scale.

The content validity of the survey instrument was assessed by the experts of the higher education and online learning regarding the relevance of the items and the unambiguity of their formulation. Cronbach's alpha was calculated for the scale used in the study to ensure internal consistency among the items. The reliability of the scale was 0.92, which is considered to be an acceptable index for field research.

To analyze the data, the factor analysis procedure of SPSS/WIN software was utilized. Factor analysis attempts to identify underlying variables, or factors, that explain the pattern of correlations within a set of observed variables.

Factor analysis is often used in data reduction to identify a small number of factors that explain most of the variance observed in a much larger number of manifest variables. The interpretability of factors can be improved through rotation. Rotation maximizes the loading of each variable on one of the extracted factors whilst minimizing the loading on all other factors. In this research Varimax method was used for rotation and all factors with eigenvalues greater than 1 were selected.

FINDINGS

From the total respondents, 40.5% were females and 59.5% were males. Approximately 53.1% of the students were less than 25 years, 40.6% were between 25 and 30 years, and 6.3% were above 30 years old. The majority of students reported that they were fairly proficient in the use of computers and the Internet.

Table: 1 summarizes descriptive statistics for the financial challenges of developing online learning used in the analysis, including mean, standard deviation and rank of the challenge from students' point of views. The finding revealed that the financial challenges, with mean scores of above average, were important issue for developing online learning. When analyzing the financial challenges of online learning in the questionnaire, it was found that 'lack of funding and financial resources' was rated somewhat higher than the other challenges such as the high cost of updating content of the courses. The finding were related to those observed by Abdon et. al. (2007).

Table: 1
Descriptive Statistics for Financial Challenges of Developing Online Learning

challenge	Mean	S.D.[6]	Rank
Lack of funding and financial resources	7.87	1.88	1
High cost of online learning tools	7.46	1.94	2
High cost of updating content of courses	7.22	2.16	3

Standard Deviation

Students were asked to rate technical challenges of online learning they considered barriers to applying online learning. Table: 2: lists the top five technical challenges that students considered as hindrance for developing online learning in higher education system.

They agreed that 'keeping up with technology' was important problem in this regard. Also, it was found that 'lack of consistent access to internet' and 'special problems of telecommunication infrastructures" were rated somewhat higher than the other

challenges such as lack of administrative and technical support for maintaining online learning equipments and lack of good plan for network security. The finding are in line with the results obtained by Lyian Song et al (2004); Abdon et al. (2007); Betts (1998) and Logan et. al (2002).

Table: 2
Descriptive Statistics for Technical Challenges of Developing Online Learning

challenge	Mean	S.D.	Rank
Keeping up with technology	7.59	1.81	1
Lack of consistent access to internet	7.51	2.39	2
Special problems of telecommunication infrastructures in Iran	7.50	2.28	3
Lack of administrative and technical support for maintaining online learning equipments	7.18	2.08	4
Lack of good plan for network security	6.99	2.42	5

Table: 3 summarize descriptive statistics for cultural and educational challenges of developing online learning in higher education. The finding revealed that all of the cultural and educational challenges had mean scores above average meaning that those challenges are serious barriers for online learning application. There were several cultural and educational challenges that respondents identified as hindrance for developing online learning.

The main issue was the lack of faculty members' adequate technical skills in online learning technologies. Also, it was found that 'lack of good management in higher education systems' and 'impossibility of conducting field courses with online learning' were rated somewhat higher than the other challenges.

Similar findings were reported by Lyian Song et al. (2004); Woods (2002); Ng (2004); Marino (2000); Hillesheim (1998); Logan et al (2002) and Hara & Kling (2001).

The standard deviation also revealed the spread of the score distribution to be small for most of the items, indicated that students tend to hold similar opinions towards the statements about challenges.

The data collected also indicated the extent to which survey respondents provided similar responses or ratings in answering the questions.

When respondents provided the same or highly similar responses, the standard deviation of their responses was small, as is shown in the tables. In sum, the data collected revealed that the students generally held positive opinions towards challenges of online learning.

Table: 3
Descriptive Statistics for Cultural and Educational Challenges of Developing Online Learning

challenge	Mean	S.D.	Rank
Lack of faculty members adequate technical skills in online learning technologies	7.75	2.13	1
Lack of good management	7.46	1.94	2
Impossibility of conducting field courses with online learning	7.25	2.17	3
Lack of training in educational technologies	7.24	2.10	4
Lack of incentives for taking electronic courses by students	7.21	2.13	5
On the side of faculty members to invest time for learning technologies	7.20	2.42	6
The resistance of faculty members for teaching online and their anxiety from new technologies	7.08	2.72	7
Lack of a sense of community and/or feeling of isolation by students	7.03	2.04	8
The opposition of higher education' beneficiaries with online learning methods	7.02	2.44	9
Low experience of students in online learning and their anxiety for taking electronic courses	6.97	2.19	10
Lack of effective communication with faculty members	6.75	2.40	11
The use of computers as luxurious tool	6.60	2.30	12
Lack of interest in students for taking electronic courses	6.53	2.80	13
High dependency of students with online learning technologies and their negligence from educational activities	5.56	2.52	14

Table: 4: shows the Kaiser-Meyer-Olkin measure of sampling adequacy and Bartlett's test of sphericity. The KMO static varies between 0 and 1. A value of 0 indicates that the sum of partial correlations is large relative to the sum of correlations, indicating diffusion in the pattern of correlations (hence, factor analysis is likely to be inappropriate). A value close to 1 indicates that patterns of correlations are relatively compact and so factor analysis should yield distinct and reliable factors.

For this data the value was 0.807, which showed that factor analysis was appropriate for these data. Bartlett's measure tests the null hypothesis that the original correlation matrix is an identity matrix. For factor analysis to work we need some relationships between variables and if the R-matrix were an identity matrix, then all correlation coefficients would be zero. Therefore, we want this test to be significant (i.e. have a significance value less than 0.05).

A significant test tells us that the R-matrix is not an identity matrix; therefore, there are some relationships between the variables we hope to include in the analysis. For these data, Bartlett's test was highly significant (Þ<0.01), and therefore factor analysis was appropriate.

Table: 4
KMO and Bartlett's test

Kaiser-Meyer-Olkin measure of sampling adequacy		**0.807**
Bartlett's test of sphericity	**Approx. Chi-Square**	**2022.45**
	df	**542**
	Sig	**.000**

Table: 5: shows the result of the factor analysis. The challenges that load highly on factor 1 seem to all relate to educational and cultural challenges. So, the first factor can be interpreted as the cultural and educational challenges, that is, the obstacle to develop and apply online learning effectively and competently. The loadings on the lack of interest in students for taking electronic courses, the resistance of faculty members for teaching online and their anxiety from new technologies, and the lack of a sense of community and/or feeling of isolation by students translate into strong educational challenges.

The high dependency of students with online learning technologies and their negligence from educational activities is also significant to this factor. Other loadings include the lack of faculty members' adequate technical skills in online learning technologies, the lack of training in educational technologies for students, the use of computers as luxurious tool, the lack of effective communication with faculty members, the lack of incentives for taking electronic courses by students, the impossibility of conducting field courses with online learning and the opposition of higher education' beneficiaries with online learning methods.

Low experience of students in online learning and their anxiety for taking electronic courses which also have lower loadings can be especially important for developing online learning. This factor has high proportion of challenges and explained 27.59% of variances of challenges of developing online learning in higher education. The second factor includes many of the technical challenges that limit application of online learning in the faculties. The most important variable here is the lack of administrative and technical support for maintaining online learning equipments. The next variable indicates the lack of good plan for network security. Other important technical challenges to the respondent are special problems of telecommunication infrastructures and keeping up with technology.

This factor explained 24.94% of variances of challenges of developing online learning in higher education. The final factor, financial challenges, has the fewest number of significantly loading variables. The most important variable here is the high cost of updating content of courses.

The next variable indicates the lack of funding and financial resources for developing online learning. Other important financial challenge to the respondent is the high cost of online learning tools. This factor has low proportion of challenges and explained 21.87% of variances of challenges of developing online learning in higher education. The above three factors have explained 74.4% of variances of challenges of online learning in higher education and 25.6% of variances had been related to variables that have not identified in this research.

Table: 5
Factor Analysis

Factor	Item	Score
Cultural/educational challenges	Lack of interest in students for taking electronic courses	0.775
	The resistance of faculty members for teaching online and their anxiety from new technologies	0.760
	Lack of a sense of community and/or feeling of isolation by students	0.727
	High dependency of students with online learning technologies and their negligence from educational activities	0.718
	Lack of faculty members adequate technical skills in online learning technologies	0.709
	Lack of training in educational technologies	0.684
	The use of computers as luxurious tool	0.652
	Lack of effective communication with faculty members	0.563
	Lack of incentives for taking electronic courses by students	0.550
	Impossibility of conducting field courses with online learning	0.541
	The opposition of higher education' beneficiaries with online learning methods	0.537
	Low experience of students in online learning and their anxiety for taking electronic courses	0.522
Technical challenges	Lack of administrative and technical support for maintaining online learning equipments	0.760
	Lack of good plan for network security	0.613
	Special problems of telecommunication infrastructures in Iran	0.550
	Keeping up with technology	0.547
Financial challenges	High cost of updating content of courses	0.835
	Lack of funding and financial resources	0.653
	High cost of online learning tools	0.618

CONCLUSION

It is widely agreed that online learning has immense potential for educational purpose in both developed and developing countries. In recent years, educational provision is changing significantly in the world and all educational institutions need to adopt online learning to survive. To fulfill this mission successfully, we must understand what creates barriers or challenges for the application of online learning in higher education. The objective of this research was to examine the challenges of developing online learning in higher education and to gain better understanding of online learning problems in higher education systems.

Therefore, the paper has identified significant challenges that higher education institutions face when attempting to use internet technologies for offering courses to students. This paper classified challenges of developing online learning into three categories of cultural/educational, technical, and financial challenges. The finding of this research was in line with the results of many researches that have been cited in the literature.

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PROVIDING FEEDBACK ON STUDENT WORK IN DISTANCE EDUCATION IN TURKEY: Practices and Recommendations

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ABSTRACT

In distance education, providing feedback on student work has a key role in facilitating learning and teacher- student dialogue. This article examines the distance learning context and providing feedback in this great but challenging system. It draws on the experiences of 200 distance learners enrolled in different programs in the Open Education Faculty at Anadolu University in Turkey.

Its purpose is to find out whether distance students are provided any feedback by their faculty, whether they think that feedback provision is beneficial in distance learning process, and lastly whether they would like their faculty to provide them with some feedback. The survey is based on a questionnaire including three questions to which distance learners can respond briefly as yes or no and, if desired, they can expand their ideas with their own sentences.

The results of the study suggest that distance learners are , on the whole, provided no feedback. Of 200 DL, 180 % of them regard feedback provision as a beneficial part of their distance learning process and want to have some feedback mechanisms in their faculty, yet 20% of the learners think just the opposite by saying that it is not something beneficial and they do not need it.

In the conclusion part, considering the high proportion in demand of feedback provision, certain feedback mechanisms will be introduced to make the distance learning process more appealing, encouraging, and fruitful for distance learners.

Keywords: **Distance education, feedback, feedback in distance education, feedback mechanisms**

INTRODUCTION

Distance education provides a great number of students who cannot or do not want to make use of classroom teaching with an opportunity to have a university degree in many countries all over the world. More than 100.000 of students have demanded and appeared in these large systems of distance education per year (Keegan, 1996). Relevant to these very large systems of distance education, 'Open Education Faculty' at Anadolu University is the number one in Turkey, established in 1982, and is continuing its distance education with increasing demand for higher education (Alkan, 1987). It has been supplying education in many subjects through printed materials, television programs and academic counseling (Demiray, 1990).

With the developing technology, a web page (eogrenme.anadolu.edu.tr) has been provided for the distance learners through which some e- learning opportunities, such as e-book, e-exam, e-counseling, e-exercises, e-television, and so on are satisfactorily included (aöf. anadolu. 2009). However, when administering a questionnaire to the distance learners in Open Educational Faculty, a deficiency in that perfect circulation has been found out, which is the lack of providing feedback that the students need to internalize their progress on the way of distance education.

In distance education, providing feedback on student work has a key role in facilitating learning and teacher- student dialogue.

This article examines the distance learning context and providing feedback in this great but challenging system. It draws on the experiences of 200 distance learners enrolled in different programs in the Open Education Faculty at Anadolu University in Turkey. Its purpose is to find out whether distance students are provided any feedback by their faculty, whether they think that feedback provision is beneficial in distance learning process, and lastly whether they would like their faculty to provide them with some feedback. The survey is based on a questionnaire including three questions to which distance learners can respond briefly as yes or no and, if desired, they can expand their ideas with their own sentences. The results of the study suggest that distance learners are, on the whole, provided no feedback. Of 200 DL, 180 % of them regard feedback provision as a beneficial part of their distance learning process and want to have some feedback mechanisms in their faculty, yet 20% of the learners think just the opposite by saying that it is not something beneficial and they do not need it. In the conclusion part, considering the high proportion in demand of feedback provision, certain feedback mechanisms will be introduced to make the distance learning process more appealing, encouraging, and fruitful for distance learners.

LITERATURE REVIEW

Distance Learning Context

To comprehend some of the factors that may have a bearing upon providing feedback on student work in distance learning context, Keegan (1990, p.44) points out five main elements of distance education: the seperation of teacher and the learner; the influence of an educational organization; the use of technical media (usually print) to unite the teacher and learner and to carry educational content; the provision of two-way communication so that the student can benefit from or even initiate dialogue; and the possibility of occasional meetings for both didactic and socialization purposes. In this respect, distance learning as an educational approach can be defined as the integration of technology, connectivity, curricular content, and human resources (Wilson, 2002). The most striking point here is that distance education is any type of education in which learners and instructors are separated from one another by physical distance (Whalstrom, 2003) or time.

In this distance learning process, it is not to be disregarded that the DL needs more chances to seek explanation, help and interact, all of which, in turn enable them to assess their performance in their learning environment (White, 1994). On the other hand, White (1995, 1997) suggests, in subsequent studies, that distance learners are able to turn these apparently adverse aspects of their learning environment to their advantage by making better use of metacognitive strategies like self management, advance organization and revision.

Furthermore, Powell (2001, p.147-150) points out that identifying and self- correcting at least some of their faults is one of the key metacognitive skills that students must develop in distance learning. However, students' ability to correct certain faults by themselves can be questioned if they are not first alerted to them. Thus, such feedback needs to engage both the teacher and the student in the learning process. This aspect of providing feedback is particularly crucial in DL, given its potential for fostering reflection and learner autonomy. (Hyland, 2001). Indeed, marking the student's work can facilitate learning by stimulating tutor- student dialogue (Jarvis, 1978).

Feedback İn Distance Education

Providing feedback is identified as one of the most prominent principles for good practice in teaching, which prompts the idea that feedback, especially positive one, has a positive effect on learners in terms of their attitude and achivement (Chickering and Gamson, 1987).

In fact, providing feedback to students is very significant in all class formats but it can be a bit more challenging in distance learning context than in the virtual classroom in that the teacher in distance education often feels frustrated due to the ongoing multiple e-mails and phone tags with students. When considering the assignments, it can be rather difficult to decide upon the best way, the alternatives of which will be expounded in following parts, to provide individual comments to students and send their written work back with meaningful feedback. Feedback provision to a distance learning student is particularly important because correcting and commenting on student's work provides the student with a great opportunity allowing her/him to build a relationship with the teacher as the student has fewer chances to ask for clarification on assignments. In this sense, a great variety of methods can be used for providing feedback to DE learners, which can change depending on student preferences, the design of the distance learning curriculum and the mechanism available for deliverance in the current situation. However, among these varying methods, only two main types of feedback and some strategies involved in those types can be mentioned for implementing in distance learning courses. Of these two fundamental types, the former is information feedback, which is informational and evaluative in nature and often given in response to a student question or as an assignment grade and comments. Here are some strategies that are practically usable for informative feedback:

- **Put a plan in place for grading and returning assignments in a timely manner.**
- **Set a schedule for responding to discussions on some discussion boards that the DL students are constantly using.**
- **List grading criteria for the course and for individual assignments.**
- **Arrange office hours or live class discussions.**
- **Use the PDF scanner to return assignments with the teacher's written comments.**
- **Use Microsoft Word or Adobe Acrobat to insert electronic comments into assignments that the teacher sends back to the students.**
- **Develop some tests and quizzes and post them on the web page of DE faculty/university.**
- **Structure assignments so that students can provide feedback to each other.**

The latter of the types is acknowledgment feedback, where the DL students are confirmed and assured that some event has taken place. The strategies listed below can easily be transferred to the distance learning setting:

- **Set a response policy and state it in the syllabus.**
- **Take note of students who fail to participate in (exams, seminars, programs, etc.) and notify them about that drop off privately.**
- **Set aside time to let students know their assignments have been received.**
- **Use special assignment submission programs.**

When it comes to feedback provision at Open Education Faculty at Anadolu University in Turkey, it can be noted that mostly information type of feedback and some of the strategies within the framework of that type are being used currently quite relevant to the assessment system of the faculty, which is mostly based on two examinations, one 30 point mid-term and one 70 point final exam.

If the distance learners of the faculty get 50 points from their examinations, they are accepted as successful students and pass the course; otherwise, they fail on having a grade below 50 points and this informative feedback is announced throughout two feedback mechanisms, which are the DL students' private mail account and the posting services of the country.

The results, being evaluated according to definite grading criteria, are delivered in a punctual manner. During that assessment process, the DL students are not supposed to submit any papers, assignments or projects so the faculty does not need to provide the students with corrective feedback. The system shows us that especially the information feedback and its related strategies are being satisfactorily made use of whilst acknowledgment feedback is not necessarily used in the distance learning context of Open Education Faculty in Turkey. In the following section , the ideas of distance learners on feedback provision at the faculty will be presented and explained in detail.

METHOD

This study was based on a survey of distance learners who are believed to have relevant experience with being provided feedback on their work at 'Open Education Faculty', Anadolu University in Turkey.

Subject

The subjects in this study were 200 students from many different departments (accounting, business, economics, public administration, public relations, and so on) at Open Education Faculty of Anadolu University in Turkey. All of the students were distance learners and never had face-to-face lessons. The distance students' ages ranged from 18- to 24- years –old with an average of 21. They were all from different classes, ranging from 1 to 4 and from different cities like Ankara, Antalya, Afyon, which shows that they do not live in the city, Eskisehir, where the university is located. While 154 of the students were registered only at the Open Education Faculty, 46 of them were enrolled in some other universities in Turkey and North Cyprus and at the same time they were distance students in different departments of the faculty, which indicates that they want to have two higher education diploma in a short time span.

Research Questions

The study aims to find out answers to the research questions as follows:

1. **Are you provided any feedback by your Open Education Faculty?**
2. **Do you think that feedback provision is beneficial in distance education?**
3. **Do you want your faculty to provide you with some feedback?**

Instrument

The researcher prepared a questionnaire as an instrument for this survey study. The questionnaire consisted of three yes/ no types of questions in relation to whether distance learners at Open Education Faculty of Anadolu University in Turkey are provided any feedback by their faculty, whether they think that feedback provision is beneficial in distance education, and lastly whether they want their faculty to provide them with some feedback. Also, some blank spaces were supplied to the students so that they can state their further ideas freely. The instrument was designed in Turkish because the DE students English proficiency level was not high enough to comprehend and answer the questions.

Data Collection Procedure

After selecting the data collection instrument, the researcher sent this instrument to many students in different cities of Turkey via e-mailing and requested them to answer the questions and express their ideas. Also the researcher wanted the distance learners to write the e-mail addresses of some other friends whom they had at the same faculty so that the researcher could reach as many distance learners as possible. 200 randomly selected subject were administered this questionnaire in 2008-2009 academic year. The researcher told the participants to complete the survey sincerely because their responses would be used for research purposes only and would remain confidential. The participants responded to the survey anonymously but they wrote their departments, and the data collected were analyzed by using descriptive statistics.

ANALYSIS OF THE DATA

Data were analyzed using descriptive statistics and to answer each research question (see below). The frequency and percentage of responses were computed to find answers to the research questions #1, #2, and #3 and also some expressions were quoted so as to reveal the ideas of DE learners overtly. Table: 1 shows the whole picture of student responses regarding questions 1-3 (the yes- no questions). Since students' expressions cannot be similarly quantified, the common themes were identified through a qualitative analysis.

Table: 1
Student responses regarding questions 1-3

	YES		NO	
	Frequency	Percentage	Frequency	Percentage
Q1	20	10%	180	90%
Q2	150	75%	50	25%
Q3	148	74%	52	26%

Are you provided any feedback by your Open Education Faculty?

Most respondents (90%) shared the same idea that they are not provided any feedback on their work or exam. The underlying reason for this, it can be stated that they do not submit regular assignments to their faculty with the exception of some departments, one of which is English Language Teaching Department. This program of the faculty consists of two sessions, two years face-to-face education and two years distance education. During the distance learning process, the students say that they submit reports about their practicum course, which includes lesson plans and teaching activities but they do not receive any feedback on their work. This engages only a few students; however, the majority of the students are not required to submit any projects, term papers, or reports and accordingly they are not provided feedback.

On the other hand, 20% of the distance learners expressed that they are provided feedback which is the information of their grades that they get from mid-term and final examinations.

They are provided that feedback through the internet and postal services and also the students emphasize that they can learn further information about the subject areas asked in the exams through tele-conferencing provided by the faculty but still do they say that it can be better to have more interactive support from the faculty. To illustrate the results, the following remarks made by students are striking:

> ***'I want to research more on my area and prepare some papers, then get some comments from professionals. ' (Business, 1st year)***
>
> ***'If I know my faults and how I can correct them, I am sure I will get higher markes.' (Accounting, 1st year)***
> ***'I submit reports to my faculty about my teaching and observation in the class but I do not know whether there is a problem or not. Can someone help me? ' (ELT, 4th year)***
> ***'I learn my grades after the exams and that is enough for me. I do not need more.' (Public administration, 2nd year)***

Do you think that feedback provision is beneficial in distance education?

The results show that 75% of the respondants stress that feedback provision can be beneficial for their learning process. They express that they will feel more connected to their faculty and feel more comfortable if they are provided feedback.

Also, they think that they can make a better understanding of the content they have mastered and what areas they are weak in, which will help them to focus their attention on the weakest areas. Lastly, they agree on the idea that they will feel more positive about the learning process since someone is really interested in their progress.

At this juncture, Hyland (2001) detected the distance learners' attitudes towards feedback provision and found that some learners do not feel confident enough to correct their faults on their own and view that correction task as a teacher's responsibility, and they consider that if the teacher highlights their faults or questions in their minds, that will let them make more active use of the feedback and extend their independent learning activities.

On the other hand, distance learners' perceptions of the benefits of feedback provision vary assumably due to different personalities, abilities and sociocultural backgrounds of the participants. 25% of the distance students pose that feedback from tutors can hinder their independency and their ability of self- correcting. Moreover, they consider that if the teacher provides negative feedback by an insulting manner, they can be demotivated and lose their enthusiasm and control. Some quotations from the students can reveal their perceptions better, which are presented below:

> ***'It is quite beneficial because feedback can make us feel like we are in the campus.' (Business, 1st year)***
> ***'For better improvement, feedback is very beneficial.' (Business, 2nd year)***
> ***'It can be useful for my future teaching career to get some feedback from more experienced lecturers.' (ELT, 3rd year)***
> ***'It can be a challenging process for me to produce some work and then get feedback and recorrect or develop it. It is not for me.' (Public administration, 2nd year)***

Do you want your faculty to provide you with some feedback ?

Majority of the participants (74%) has the idea that they need feedback on their works. Especially, after the examinations , they cannot understand some questions that they answered wrongly and cannot find the necessary explanations from the books, in which case they need some qualititative feedback to their questions provided by the faculty staff via the internet or telephone. Furthermore, they suggest that some seminars or conferences, on-line or virtual, can be organized so that they can come together to discuss about everything they wonder with their friends and teachers. Another comment is that for regular feedback, some tutors can be assigned in some cities so that the distance learners can get in touch, in reciprocal mode, with the tutors and may get more motivated or encouraged for further study.

However, the 26% of the DL students stated that they never need further support in terms of lessons, which reveals that they are good at managing their distance learning process or they are afraid of not having enough time, energy, or money to benefit from the advantages of feedback provision. When comparing results of question #2 and #3, it can be put forward that the students have the same views about the benefits of feedback and the need for feedback. Only 1% deviation is calculated, which displays 2 participants think that feedback provision is beneficial but not necessary for them. To exemplify the case, some quotations can be supplied as follows:

> ***'I would like to prepare some projects and see how much I can do that.' (Public relations, 2nd year)***
> ***'It can be motivating for us to attend some seminars and learn about new trends in our field. In these seminars, we can have the opportunity to interact with experienced professors in our university.' (Public administration, 1st year)***
> ***'If I can realize my faults, I will try to overcome them, but unfortunately no.' (Accounting, 2nd year)***
> ***'If there are some teachers from the university in my city, I can visit them whenever I have a problem with my lessons.' (Public relations, 1st year)***
> ***'I am not expected to get regular feedback from the faculty. It is good for me because I don 't have much time.' (Business, 1st year)***

CONCLUSION AND RECOMMENDATIONS FOR PROVIDING FEEDBACK IN DISTANCE EDUCATİON

Distance education is an advantage for all people who do not have suitable social, economic and cultural conditions but who want to have a higher education diploma.

In this context, providing feedback can stimulate the distance learning process, which is validated by the ideas of a great number of distance students. There are three main factors clear from this body of research, which are that the distance learners are provided only grade information feedback but not more, that the majority of the distance learners share the idea that feedback provision is a beneficial aspect in distance education and that almost all of them need feedback on their work.

In the light of their demand for feedback provision, some feedback mechanisms are explained in detail with their pros and cons below :

Feedback through written correspondence

Written correspondance is one of the ways utilized to provide feedback to the students in distance education system. This mechanism functions in three forms, which are illustrated below one by one:

Feedback through tutor-marked assignments

In this form, the distance learners are expected to complete a written task in certain periods and send it for evaluation by the tutors and the tutors are expected not only to evaluate their works and point out their mistake but also to provide them with sufficient comments and suggestions which can help learners improve their work and chance their perpective in right way of the content they are learning. After evaluation, the papers can be resent to the students by postal services, e-mailing or handling directly to the student in student centers or the faculty. The key consideration here is to calculate the turn- around time efficiently. At that point, the tutor marked assignments constitute an outstanding form of providing feedback to students in distance education.

Feedback through computer marked assignments

CMAs are machine evaluated type of feedback provision, which includes both some pros and cons. The main advantage of this type is that the turn- around time is shorter, which is desired by the students and the deliverance of the assignments is cost-effective.

On the other side, the feedback provided by the computer may not be as well-qualified as the distance learners have expected since the comments are generated by the computers. Another drawback is that the internet and the computers may not be available or accessible everywhere the distance learners are living. In brief, it can be stated that this form of feedback is much more desirable as an outcome of technology era.

Personal correspondence

Personal correspondence, otherwise named as 'instructive correspondence', refers to the process which starts when the students receive the assignment corrected or commented by the tutor and it takes place in case the learners need more clarifications on the points made by the tutor.

This two- way communication between the student and the teacher either ends when the tutor sends the requested clarification or goes with another loop with the students' another seek for further explanation if the student's mind is still full of doubts and questions. On the other hand, this may be an unbearable duration in case the distance learners exaggerate the PC process. However, it must be remembered that the reports they receive can be positively contributing to their learning at a distance.

Feedback during face-to-face sessions

In the philosophy of distance education, learner autonomy is of great importance, so face-to-face sessions are generally considered as a blockage in their autonomy but in some different philosophic orientations of distance education, this mechanism is regarded very useful and utilized in three main forms, which are explained below one by one:

Feedback during individual contact with faculty staff

Feedback supplied through individual contact with faculty staff is immediate and not expected to be judgmental, which means that it is perceived by the students as explanatory. Since the feedback is direct to the learner, it can be clear and concise but still can there be a confusion in the student's mind due to two main reasons which are that DL students, in general, want to get straight-forward replies to their questions just enough to pass the course or learn the problematic point in the question. And, however, the teacher may want , normally, to go into the depth of the concept in order to have a good teaching impression in the minds of the teachers. Such a way of receiving feedback can be rather challenging for distance learners, having personal and social responsibilities' besides learning at a distance. That problem is possible to be handled by making these contacts optional but not obligatory in the distance learning process.

Feedback during voluntary contacts at the study centers

In study centers, distance learners are able to have an access to the material and technological support. Also, they can have tutorial help from subject tutors and mentors. In open universities or faculties, visiting study centers for mentioned facilities are to be left to the preference of the student, which is a voluntarily continuing process.

This feedback mechanism is immediate and regular as long as the student desires and needs since the interaction between the student and the teacher is face-to-face. On condition that the study centers are easy to access for all DE learners, living all parts of the country, that type of feedback provision can be useful and demanding as it sounds cost and time effective.

Feedback during group seminars

Group seminars can be organized by open universities or faculties from time to time for their distance learners to provide them with not only an opportunity to contact with the faculty staff personally but also to create an opportunity to share and discuss their ideas on academic concerns.

Hence, group seminars serve as a platform for distance learners to get feedback from their relevant faculty staff. If the participation is satisfactory enough, the feedback provided in these events can increase the face-to-face interaction and facilitate the learning.

Feedback through non-contiguous interaction on electronic media

Electronic media plays a very pivotal role in mediating non- contiguous interaction between the distance learners and the teachers. The great demand for mediated communication in distance education highlights the need to understand the impact that new technologies have had on distance education delivery methods (Garrison, 1985).

Three commonly used electronic media to provide feedback on student work in distance learning process are as follows:

Feedback on Telephone

Communication on the phone is the most readily available medium of two way interaction in distance education today, which gives the student a chance to ask a question to the teacher or answer a question asked by the teacher. Feedback on the phone is immediate, potent and insistent and its regularity is in the hand of the students. The clarity and conciseness of the feedback can be negotiated by the student when needed. With the exception of the telephone that the teacher will possibly encounter, the advantages outweigh its limitations.

Feedback through tele-conferencing

One-way video or two-way tele conferencing has been used as a component of providing feedback in distance education to enable the students to continue a diploma in higher education by making them participate in discussion groups and question-answer sessions with tutors in the field of their department.

The studies done by Sahoo (1994) and Sinha et al (1994) reveals that this mode of feedback provision is very helpful in distance education; however, some participants reported such problems as inadequate time allocation for question- answer sessions and high cost of telecommunication.

Feedback through the Internet

The internet is an up-to-date tool for providing feedback in DE, through which the learners can not only e- mail their queries but also use some other facilities which their faculty offers online for the students. In some cases, the faculty can provide the distance learners with a facility to join online seminars and discussions on their courses, which is particularly important in distance education as it offers the students a possibility to put forward their views for discussion and an opportunity to benefit from commentaries and viewpoints of the peers and academic staff. Although this mechanism can be blocked due to some technical problems, it is still practical, cost-effective, and preferable.

In line with the results of analyzed data collected from the distance learners of 'Open Education Faculty' at Anadolu University in Turkey concerning feedback provision on student work, the following recommendations can be proposed:

- **The distance learners of Open Education Faculty should be required to submit some projects or assignments. This submission may not be evaluated for passing grade but can be a pre-requisite for sitting for the final exam.**
- **OEF staff should comment and correct the papers and then send their feedback to the students through posting or e-mailing.**

- **Student centers should be opened and a few tutors should be assigned there to support the learners at a distance.**
- **Contact classes should be programmed that the DE learners can optionally attend and ask for help.**
- **The number of the faculty staff should be increased by considering the great number of the students.**
- **Each tutor should be responsible for a certain group of students and provide them with feedback on their learning progress.**
- **Technological feedback mechanisms should be put into action to reach all distance learners.**
- **Technological support should be supplied to the less developed parts of the country.**
- **From time to time, seminars and conferences should be organized for only distance learners where they can get peer or tutorial feedback.**
- **OUP should negotiate with international distance education institutions in order to share their systems of providing feedback.**

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SUPPORT FROM A DISTANCE: PERCEPTIONS OF MALAYSIAN STUDENTS ON COMPUTER MEDIATED COLLABORATIVE LEARNING

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ABSTRACT

The aim of this paper is to report findings from an on-going research using Computer-supported Collaborative Learning in an ESL classroom in Malaysia. Collaboration is the act of working together to produce a piece of work. Collaborative learning deals with instructional methods that seek to promote learning through collaborative efforts among students working on a given task. Class based CL fits well with the philosophy of teaching: working together, building together, learning together, changing together and improving together. Computer-supported CL (CSCL) has an impact on the development of deep thinking about ideas as students are engaged in writing rather than talking. By doing so, they have more time to think about the responses; able to engage in developing arguments; have time to follow up references and read literature, etc. Selected students from Malaysia were asked to work collaboratively (through e-mail) with students from the USA. At the end of the collaborative activities they were expected to complete written projects. The students were interviewed on their perceptions on this innovative way of learning. The findings indicate that the students have responded positively towards computer supported collaborative learning.

Keywords: **Collaborative learning, computer-supported collaborative learning, ESL classroom, Class based CL.**

INTRODUCTION

Collaboration is the act of working together to produce a piece of work. Collaborative learning deals with instructional methods that seek to promote learning through collaborative efforts among students working on a given task. Class based CL fits well with the philosophy of teaching: working together, building together, learning together, changing together and improving together. Computer-supported CL (CSCL) has an impact on the development of deep thinking about ideas as students are engaged in writing rather than talking. By doing so, they have more time to think about the responses; able to engage in developing arguments; have time to follow up references and read literature, etc.

The purpose of CSCL is to scaffold or support students in learning together effectively. It is based on the promise that computer supported systems cansupport and facilitate group process and dynamics in ways that are not achievable by face-to-face, but it is not designed to replace face-to-face communication.

This article will discuss the students' perceptions in producing their written projects using computer supported collaborative learning in ESL writing.

COMPUTER SUPPORTED COLLABORATIVE LEARNING: A Review

Depending on the type of collaborative tasks to perform Computer Supported Collaborative Learning (CSCL) could be employed to address concept learning, problem solving and designing. CSCL focuses on what is being communicated and is used in the educational setting. The purpose of CSCL is to scaffold or support students in learning together effectively.

Gokhale (1970) examined the effectiveness of individual learning versus collaborative learning in enhancing critical thinking skills and drill-and practice skills. Results of the performances of these two groups showed that students who participated in collaborative learning had performed significantly better on the critical-thinking test than students who studied individually. It was also found that both groups did equally well on the drill-and-practice test. This result is in agreement with the learning theories proposed by proponents of collaborative learning. From here, it can be concluded that collaborative learning develops critical thinking through discussion, clarification of ideas, and evaluation of others' ideas.

An exploratory study was carried out by Ragoonaden and Bordeleau (2000) to observe and research two undergraduate university courses offered via the Internet. Students were asked to identify how they were able to interact with their computer according to choice, sensory, temporal and usage. An analysis of the e-mail messages indicated that the following collaborative mechanisms were used: explaining concepts, sharing of work, compromise, encouragement and socialization. These students were also interested in the Internet and the various communication and research tools available. For these students, distant learning via the Internet and the collaborative assignments were successful and had enhanced their learning and provided them with a network of help stemming from their peers and their professor.

As for CMC, collaborative learning is seen in a different angle. CMC has an impact on the development of deep thinking about ideas creatively and critically. Harasim et al (1985) and Mason & Kaye (1989) suggest that if participants are engaged in writing, rather than talking, they are able to attain a higher level of analysis of ideas. There are a number of reasons why this might be the case. Students have more time to think about the responses before the write to respond. By that they are able to engage in developing arguments, have time to follow up references and read literature.

Their responses can be more detailed and argumentative within that time. Contributions of ideas can be seen as being more objective and anonymous and also there is a group record of the debate that can be used as an accurate reference at a later date if needed (such as the assignment stage). CSCL is about the topic that is being communicated through interaction and is used in the educational setting.

The purpose of CSCL is to encourage and support students to learn together effectively but is not the same as face-to-face communication. CSCL system is made for many learners from every corners of the world to use at the same workstation or across networked machines.

It requires teachers and students to adopt an educational philosophy or a technology medium that focuses on "knowledge building" as the main learning activity (Simons, 2004) which can support communicating ideas and information, accessing information and documents, asking, sharing and giving opinions on problem-solving activities. The research of CSCL covers the learners' social, psychological, organizational, and also their learning effects.Theories related to the CSCL:

- **Vygotsky's Sociocultural Theory – Human intelligence comes from society or culture, and individual cognitive gain through social interaction than intrapersonal (internalization). His idea of ZPD is which peer interaction in which scaffolding and modeling are important ways to develop individual learning and thinking skills as well as support intentional learning that can be successfully employed in the study of CSCL. Learning takes place when peers engage in an interaction with one another. This ZPD can consist of people i.e. students and teachers, and also learning materials i.e. books and computers**
- **Constructivism Theory – Learning emphasizes on meaning-making through active participation in the real life worlds which involves the aspects of social, culture, history, and political situated context. To support this, it is important to carry out situated collaborative activities by participating in dialogs of experiences, making decisions, solving problems and having discourses which involve authentic and challenging projects. Its goal is to create learners to be responsible for their own learning in the real world.**
- **Problem-Based Learning/Anchored Instruction - This students-centered way of learning begins with a problem to be solved rather than mastering content. For example, students create a problem and solve it among themselves by discussion/interaction.**
- **Distributed Cognition- The interaction among individuals, their environment, and their cultural artifacts is vital. The minds of the individuals should be a reciprocal process i.e. getting learners to be used to the tools which lead to the changes of the joint performances and products at the end of the task. The improved competencies gained then can distribute among and stay in individuals, thus having improvements in the aspect of cognition. Whoever plays the leading role in influencing this distributed cognition is situated bounded.**
- **Cognitive Flexibility Theory - Spiro's Theory (1988) and criss-crosses landscape theory approaches present how general knowledge is transferred in ill-structured domains. They suggest an over-lapping of well-and-ill-structuredness in the early stages, to familiar learners with grounded knowledge yet avoid establishing rigid presentation instruction or course.**
- **Cognitive Apprenticeship – Students develop cognitive strategies when teachers provide them with a framework as guides using instruction process. Wilson & Cole (1994) describe the core characteristics of cognitive apprenticeship model: heuristic content, situated learning, modeling, coaching, articulation, reflection, exploration, and order in increasing complexity. It also allows peers to learn through their interaction, and to share their experiences with the group.**

- **Situated Cognition–This cognition is viewed as situation-bound and distributed rather than decontextualized tools and product of minds. Thinking is both physically and socially situated. Interactions can take place during problem solving, provided that problems are not artificial but reflect the real world. This new way of learning emphasizes a system of learning a skill, coaching, collaboration, multiple practice, articulation of learning skills, stories and technology.**
- **Self-Regulated Learning - Metacognition-A self-regulated learner knows if she/he knows a fact or when she/he does not.**

Acquisition is a systemic and controllable process where the mind controls input/information in a systematic way thus greater responsibility for achievement is accepted. The learner is the initiator of the learning process, so she/he is responsible for her/his own cognition. This theory has played a part in behavioral, cognitive, awareness, social cognition, and constructivism theory. In behavioral theory, regulation is achieved through external reinforcement to encourage positiveness. In cognition theory, self-regulation is knowing about and regulating cognition, as in practicing what one understands. Social cognition theory is a combination of self-observation, self judgment, and self reaction.

METHODOLOGY

Sample

10 students from a secondary school in Malaysia were selected to work collaboratively via e-mail with their peers (also 10 students) from a high school in USA. The following are the profiles of the students involved in this study:

Profile of students from Malaysia	
Age of students	6 students-17 years old, 1 student-16 years old, 1 student-1 years old, 2 students -14 years old (10 altogether)
Level of proficiency	average
Race of students	6 Malays, 3 Indians , 1 Punjabi
Gender of students	7 males, 3 females
Class level	Secondary school (forms 2 to 5)

Profile of students from USA	
Age of students	All are17 years old.
Level of proficiency	high
Race of students	1 Asian, 1 Black, 1 Pakistani, others Anglo Hispanic (10 altogether)
Gender of students	7 males, 3 females
Class level	12th grade-honors'

INSTRUMENTS

The instrument used for collection of data is interview. After the Malaysian students have completed the projects with the support provided by the peers from the USA they were interviewed to elicit their perceptions regarding the computer supported collaborative learning.

PROCEDURE

The first stage of conducting the research is the briefing of the 10 Malaysian students. The CSCL concept was first introduced to them. Profiles of the students from USA as well as the Malaysian were collected by the researcher. This included name, age, knowledge in computers, family/school life, their class and also social background of all students involved. Then, an explanation of the task took place, whereby the 10 Malaysian students were told that they will have to write on 10 different topics. This was to ensure that these students did not copy from each other when they were in the midst of the project. The Malaysian teacher also briefed her students on what is to be done and how to go about it this project in communication via e-mail. She told them what is to be expected out of this project. The students who did not have an e-mail created one for themselves.

After the briefing, they (the Malaysian students) were given their topics which differ from one another, and also the email addresses of their buddies in the USA. Students from the USA were briefed as well by their teacher while the teacher had already given the green light to the researcher for the students to begin communication via email. Then, they began to communicate with their buddies via email, talking about school preparations (mentally and emotionally) i.e. feelings and plans for their future, activities in school, sports, courses taken and any opinion/likes/dislikes to share so that students will establish a personal relationship.

This is when the Malaysian students began collecting information about their topics. They first asked for information related to the topics assigned for them by the teacher. Information may contribute to the content of the essays they produce later.

At the same time, the students from the USA were also briefed on the project and what is expected from this collaboration that is to provide information based on topics. In the next stage, one of the researchers communicated with the teacher from the USA to ascertain that her students replied and communicated to the samples. All students worked on this online project for a semester because it was ample enough time to work on the writing project.

Students printed the feedbacks from their buddies and kept them in their files as evidences. They were told that pictures were allowed. These evidences are to show that they wrote their essays using the information given by their buddies for their project. This included their first draft as well as their final. Their buddies' (from USA) feedback about USA culture and lifestyle were the contents of their (Malaysian students') project. Apart from that, the Malaysian students also wrote in their essays about their own cultures in comparison.

This was to develop critical thinking skills among the samples and the readers of the projects, besides contrasting the lifestyles of Malaysia and the USA where they compared and showed contrast of the two different cultures and knowledge was attained. Of and on, the teacher from the USA also emailed the Malaysian teacher to report on how she was coping with her students' collaboration activities. This was in line with one of the collaborative learning principles–to regulate and monitor the interactions. The print(s) of the teachers' communications with the teacher from the USA were also kept as evidence that there was collaboration on both sides.

The topics were chosen by the researcher because they can open up discussions on different cultures and backgrounds for students to write a comparison between Malaysia and USA.

All topics for the 10 students which had elements of cultural awareness and they discuss with their buddies are shown below:

	TOPICS
1	Historical Places in the USA and Malaysia
2	Visiting Places in the USA and Malaysia
3	Welcoming the New Year in the USA and Malaysia
4	A Traditional Wedding Ceremony in the USA and Malaysia
5	Festivals in the USA and Malaysia
6	National Day Celebration in the USA and Malaysia
7	Christmas in the USA and Malaysia
8	A Great Holiday in the USA and Malaysia
9	Examination Preparation in the USA and Malaysia
10	Religions in the USA and Malaysia.

ESL STUDENTS' PERCEPTIONS ON CSCL

This section will discuss the students' perceptions of using CSCL as a new learning approach in ESL writing. The data collected from the interview was analysed and reported.

First we will discuss the feelings of the students and their perceptions in completing their projects collaboratively.

They were also asked about the strengths and weaknesses of the approach.

The tables below summarised the findings:

Table: 1
Coding of interview transcripts based on
the feelings of the students who embarked on the project

Cod	Component	Students who commented on the component in their transcript
B1	Happy	Haziq, Faiz, Iqram, Neesha, Shahira, David
B2	Lucky	Faiz, Shahira
B3	Honoured	Shahira
B4	Delighted	Yassir
B5	New experience	Jeshua, Sedhiqin, Neesha, David, Rishmit
B6	excited	David

Table: 2
Coding of interview transcripts based on
the perceptions of the students about the Project

Coc	Component	Students who commented on the component in their transcript
E1	New experience	Haziq
E2	Great	Jeshua, Iqram, David
E3	Good	Sedhiqin
E4	Unique	Yasir
E5	Opportunity to improve English	Faiz, Shahira
E6	Interesting	Neesha, Rishmit
E7	Efficient	David

Table: 3
Coding of interview transcripts based on
the strengths of the project (Students' views)

Code	Component	Students who commented on the component in their transcript
F1	Communication with people from all over the world	Haziq, Iqram, David
F2	Learning new things	Jeshua, Neesha
F3	Way to get information	Sedhiqin, Yassir
F4	Enhance knowledge	Sedhiqin
F5	New way of learning	Faiz, Shahira
F6	Improvement	Faiz, Shahira
F7	Awareness	Rishmit

Table: 4
Coding of interview transcripts based on
the weaknesses of the project (Students' views)

Code	Component	Students who commented on the component i their transcript
G1	Lack of time	Haziq
G2	Lack of replies	Haziq, Jeshua, Sedhiqin, Yassir, Faiz, Iqran Neesha, Shahira, David, Rishmit

According to codes B, E,F and G, the students perceive this project as a positive task to take on. To begin with, let's look at code B first. All students commented positively about taking part in this project when they were asked about their feelings about the project. As seen above, most students were happy about this project. They used the words 'delighted' and 'happy' when asked about their feelings. 3 of them who did not use these words felt that this was a new way of making friends. The table below shows some excerpts that illustrates on the students' feelings about this project:

Table: 5
Students' interview responses excerpts based on their feelings

Code	Component	Transcript excerpt
___		**B1 happy (and honoured)** **Shahira: I feel honoured and happy……..** **B2 lucky** **Shahira: …and I feel I am such a lucky person to do this project.** **B5 new** **David: …great chance for me to gain a new experience** **B6 excited (and happy)** **David: I felt very happy and excited about this project…**

This implies that interaction and communication via email could be new, thus making the students interested and curious about learning so that they approached the project seriously. On the whole, all their responses were very positive. They were generally happy about their new acquaintances. It is noticed here that more than a word of feeling was used by the students (Shahira, Faiz, Neesha, David).In addition to that, the interview also elicited the students' opinion about the project after they completed the projects. Some students said that it was interesting as in E6, and the others said that this was an opportunity to improve their English in a different way showed in E5. The following table explains further some of the students excerpts in the interview when they were asked question #2.

Table: 6
Students' interview responses excerpts based on their perceptions

Code	Component	Transcript Excerpts
___		**E4 unique** **Yassir: I think this project is really unique because it involves online and technologies and for me to communicate with foreign students abroad in America.** **E7 efficient** **David: umm… I think this online assignment is really a great way for teenagers from different countries to communicate. Since mostly everyone these days has e-mail, it's**

really fast and efficient way to communicate.

E3 good
Sedhiqin: mmm…I felt good being given this chance to do this project.

It can be seen here that all students felt that this project has served them purposefully. Words that they used when responding were 'good', 'great', 'unique', 'improve English' and 'new knowledge'.

The students did believe that this kind of project is of advantage to them, which may be more a result of communication and interaction with a foreigner or someone who knows better than them.

They were generally happy about the way they got the information needed for their essays and that is using technology via e-mail.

Table: 7
Students' interview responses excerpts based on strengths and weaknesses

Code	component	Transcript excerpts
		F2 learning new things **Jeshua: I learn new things like the culture about USespecially Christmas celebration there. It gave me some awareness of the religion as well. It is also a new way of learning to write.**
		F4 enhance knowledge **Sedhiqin: umm…it is a truly a way to get information about the US besides doing it the common way like going to the library or finding it from the internet. Also, enhance[s] my knowledge about historical places there.**
		F7 awareness **Rishmit: I learnt new things such as culture awareness, religion, et cetera…**

As seen in codes F and G in Table 7 and 8, there were strengths and weaknesses of this new way of learning, according to the students.

Responses from each student explained the perceptions about the projects' strengths and weaknesses. The table below shows some excerpts that illustrate the strengths first and then the weaknesses of working collaboratively online for the projects.

The students reported both strengths and weaknesses as this is a new way of learning for them. Note that there were some students who gave the same responses as the others in either the weaknesses or strengths. In code G, the weaknesses of this project was reported by Haziq (G1) were "the lack of time and replies to complete this project in time". He felt that the lacking of replies is taking most of his time. He was more concerned with completing the project in time. The others commented on the lack of replies that made them frustrated.

These (lack of time and replies) were the only two aspects that the students responded when they were asked about the weaknesses of the online collaboration. However, we can see that there are more strengths than weaknesses reported by the student.

This implies that although there were problems faced by the students in the online interactions, these problems did not hinder them from completing the projects.

This could be because this project was somewhat a new way of learning and gaining information and input, as stated by the students in the interview. The results suggest that in all new ways of learning, there are pros and cons a teacher and her/his students must encounter. Besides that, students have mastered new approaches of learning at the end of the project when they interacted with others.

The last few of the questions in the interview were useful for us to examine closely, as they relate to preferences in learning English skills using the technology and thus can be compared among each other to judge the degree of students' attitudes towards learning. All of the students prefer getting information using this innovative way (getting information from their buddies from another classroom out of the country) when it comes to gathering data for any assignment in the future rather than using traditional ways.

CONCLUSION

This study has unraveled many implications to many parties concern. Firstly, to the students, it is a new way of self-study outside the walls of a classroom. Getting information from peers who have better knowledge is a good way for learning to take place (Vygotsky's theory of ZPD). They can improve literacy with writing suggested this study and cultivate knowledge and cultural understanding besides increase motivation through self-directed, CL and access to technology.

As for teachers, they can engage students with fun and real-world learning situation, participate in e-pals projects in many subjects, foster cultural awareness, focus on teaching with technology and also track students' progress apart from posting homework/activities for students.

For parents of students, they can have dialogs with school staff, experience multilingual communication, have confidence that students' tasks are monitored and also understand the online environment.

Present day writing classrooms have no boundaries now. CSCL offers global communications where teachers/students are discovering the magic of collaborating with other schools/classes. From around the world teaching and learning are no more within the four walls of the classroom.

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STUDYING THE ATTITUDES OF AGRICULTURAL FACULTY MEMBERS TOWARDS DISTANCE EDUCATION

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ABSTRACT

This descriptive survey research was undertaken to study the attitudes of agricultural faculty members towards distance education. The statistical population of the study consisted of all the faculty members of agricultural colleges of Shiraz and Ferdowsi Mashhad universities (N=180). According to Krejcie & Morgan table, a sample of 123 persons was selected using the stratified random sampling method (colleges as strata). Data collected using a mailed questionnaire that was validated by a panel of experts and the reliability index was established by Cronbach alpha's coefficient. The results revealed that more than half of the agricultural faculty members had moderate familiarity with distance education. Also, the results indicated that agricultural faculty members had a positive attitude towards distance education. Finally, agricultural faculty members ranked time as the primary barrier to using instructional technology in distance education.

Keywords: **Agricultural Faculty Members; attitudes; distance education.**

INTRODUCTION

Information and communication technologies (ICTs) are a major factor in shaping the new global economy and producing rapid changes in society. Within the past decade, the new ICT tools have fundamentally changed the way people communicate and do business. They have produced significant transformations in industry, agriculture, medicine, business, engineering, and other fields (UNESCO, 2002). Also, Information technology is dramatically affecting the way people teach and learn (Delacey and Leonard, 2002; Radcliffe, 2002; Starr, 1997). They have the potential to transform the nature of education-where and how learning takes place and the roles of students and teachers in the learning process (UNESCO, 2002). The world are under increasing pressure to use the new information and communication technologies (ICTs) to teach students the knowledge and skills they need in the 21st century. Social reality is changing very quickly, university studies must adapt to the international context and technology development is facilitating new strategies of communication.

All this is forcing Universities to change not only their degrees and studies programs, but also to renew some situations that until now seemed stable as teaching methodologies. Information and communication technologies (ICT) are becoming more and more important in the higher education process, claiming new spaces and conditions of learning, and new professional roles for teachers (Garcia and Tejedor, 2006).

Distance education is any type of education in which learners and instructors are separated by physical distance (Whalstrom, 2003) or time. It has a substantial history that begins in the mid 1800's with correspondence type of print-based courses (Verdiun & Clark, 1991). Besides the print-based materials, distance education benefited from telecommunication technologies of radio and television broadcasting and audio-video recording during the past years.

According to the literature (e.g., Cragg et al., 2003; Brinkerhoff & Koroghlanian, 2005; Williams et al., 1999) distance learning through online or Internet technology has 68 enormous potential to reach widely dispersed populations and to meet educational needs of individuals. Distance education fosters learning and teaching in a variety of ways.

One of the many advantages of distance education is that it offers instructors and student flexible learning setting in terms of time and location. "Distance education is becoming a good way to acquire knowledge separate from the traditional method of attending the classroom" (Schmidt & Gallegos, 2001). Learning does not require students to being physically present in the same place as an instructor (Walker, 2005) nor at the same time. Distance education might be used for different purposes such as supported learning, blended learning (combination of face-to-face and online learning), and entirely online teaching (Pearson & Trinidad, 2005). In distance education, learning is developed through sharing ideas and thoughts (Palloff & Pratt, 1999) and personal interactions between participants (Walker & Fraser, 2005). Many factors, such as the infrastructure, quality of support system quality of content and assessment, and peer support networks, may influence the online learning experience (Arbaugh, 2000; Areti, 2006; Bender, Wood, & Vredevoogd, 2004; Roberts et al., 2005; Trinidad & Pearson, 2004). Schmidt and Gallegos (2001) list other factors such as type of distance delivery method, reasons for enrolling in the course, and learning objectives. In fact, planning and designing distance education courses is a complex task that includes many factors (Pearson & Trinidad, 2005; Trinidad, Aldridge, & Fraser, 2005; Wilson, 2001).

Thus, educators need to consider these factors to provide their students with effective learning environments. Teachers played an important role in the success of distance education (Gibson, Tesone, Hodgetts, & Blackwell, 2001; Lin, Young, Chan, & Chen, 2005; Wiesner, 2000), especially those in higher education (Croy, 1998; Haas & Senjo, 2004). Addressing the question raised by Shoemaker (1998) on the leadership of distance education in higher education, Irlbeck and Pucel (2000) identified five common elements requiring leadership, including quality of education, planning, implementation, resources, and support. Teachers and government policies have significant influences on all these five elements. Berge, uilenburg, and Haneghan (2002) also suggested that teacher issues were the highest ranking barriers to a successful distance education program.

Teachers have been reported to have problems with distance education because of the extra work on classroom material conversion (Lee, 2002), difficult to gauge student learning (Motiwalla & Tello, 2000), and the lack of teacher–student interaction (Arbaugh, 2005; Ausserhofer, 1999; Gibson et al., 2001; Wiesner, 2000).

However, as can be seen in the abundant literature on the effect of distance education, the majority of data were drawn from the learners' perspective instead of the teachers' (Carr, 2000; Everetts, 1998; Gibson et al., 2001; Hailey, Keith, & Hult, 2001). Although some teachers' viewpoints could be found in these literatures, since the authors were also teachers, we found very little full-scale empirical research done to collect the teacher's side of the story. Existing literatures on this respect were limited to small-scale qualitative studies (see Broady-Ortmann, 2002; Haas & Senjo, 2004; Lao & Gonzales, 2005) or studies toward a certain artifact (such as Woods, Baker, & Hopper, 2004). Croy (1998) once pointed out that "it is faculty who bear primary responsibility for the impact of distance technology in higher education, and there is currently a wide gulf between faculty attitude and this technology". Blignaut and Trollip (2003) were aware of this lack of teacher studies and had developed taxonomy of faculty participation in synchronous learning environments.

Howell, Saba, Lindsay, and Williams (2004) presented seven strategies for university administrators and faculty for deploying their own strategic plan to ensure program success. These strategies included:

- **enabling colleges and departments to accept more responsibility for distance education activities;**
- **providing faculty more information about the distance education programs and activities; (3) encouraging faculty to incorporate technology into their traditional classrooms;**
- **providing strong incentives for faculty to participate in distance education;**
- **improving training and instructional support for distance education faculty;**
- **building a stronger distance education faculty community; and**
- **encouraging more distance education scholarship and research.**

Unfortunately, these seven strategies were merely general descriptions, and did not offer specific links to applicable groups of teachers with different motivations, attitudes or experiences. There was still a void in the understanding and description of teachers in terms of their overall attitude towards distance education.

We believe this kind of information is important for university managers in their strategic decision to effectively invest in distance education (Shea, Motiwalla, & Lewis, 2001), to minimize teacher resistance, and to encourage innovation (Irlbeck & Pucel, 2000).

Therefore, the intent of this research was to clarify faculty members' attitudes towards distance education and determine the most important barriers to using instructional technology in distance education. Iranian agricultural faculties' distance education is briefly introduced below before presenting the research methodology for this study.Distance education in Iran is still in its infancy stages and there are only a few online programs although it is a necessity for Iran rather than convenience owning to shortage of higher education institutions and enormous demand for education.

Agricultural Faculties have not delivered any online program and faculty members have not passed any online courses, but they do many activities via internet, for example they communicate with students and receive their assignments and homework via internet. In other words, distance education as a type of education has not been used in agricultural higher education, but faculty members use internet and distance education tools very much for doing their daily tasks.

RESEARCH METHODOLOGY

A descriptive survey research was conducted to achieve the objectives of the study. The population of this study consisted of all the faculty members of agricultural colleges of Shiraz and Ferdowsi Mashhad universities (N=180). According to Krejcie & Morgan table, a sample of 123 persons was selected using the stratified random sampling method (colleges as strata). Data were collected using a mailed questionnaire covering:

- **Demographic characteristics such as sex, age, work experiences and employment status; (2) one question regarding the level of familiarity of agricultural faculty members with distance education;**
- **Eight questions about attitudes of agricultural faculty members towards distance education and**
- **Four questions about barriers to using instructional technology in distance education.**
-

The parts of 2 and 4 were measured using a five-point Likert scale ranging from 1 (very low) to 5 (very high). Also, to measure the attitudes of agricultural faculty members towards distance education, a five point Likert-type rating scale was used (1=strongly disagree to 5=strongly agree).

The validity of instrument was established by a twelve-member panel of experts in the field of agricultural extension and education at the University of Tehran and distance education related fields from the other universities. A pilot study was conducted to determine the reliability of the instrument.

Cronbach alpha's coefficient for scale of perceptions of agricultural researchers towards distance education was 0.91, which refers to the reliability of the research questionnaire. The collected data were analyzed using the statistical package for the social sciences (SPSS). Appropriate statistical procedures for description, including frequency, percentage, and cumulative percent were used.

RESULTS

According to the results, most of the respondents (96.5%) were male and only 3.5% were female. The average of respondents' age was 42.5 years old. For faculty members, the period of work experience ranged from 2 to 30 years (13.2 years, on average). As to agricultural faculty members' employment status, more than half of them (74.5%) were official government employees, and the rest (35.5%) were performing their jobs based on some other arrangements, like temporary employment.

Table 1:
Level of familiarity of agricultural faculty members with distance education

Level of familiarity with distance education	Frequency	Percent	Cumulative percent
Very low	6	4.9	4.9
Low	14	11.1	16
Moderate	70	57	73
High	27	22.1	95.1
Very high	6	4.9	100
Total	123	100	

As shown in Table: 1 a small percentage of the respondents (16%) had very low and low familiarity with distance education. Also, the most of respondents (57%) indicated their familiarity with distance education at moderate level. While, only some 26% of agricultural faculty members were familiar with distance education at high (22.1%) and very high (4.9%) levels.

Table: 2 portray the attitudes of the agricultural faculty members towards distance education.According to the results, 88.8% of the respondents agreed with following statement: "Distance education produces better learning results than traditional teaching". Considering the statement: "Distance education rapidly delivers knowledge and information to learners", 85.7% of the respondents indicated their agreement with that and only some 10% of them disagreed with this statement.

The majority of the respondents (79.1%) believed that "Distance education effectively integrates teaching resources", while, 10.6% of them disagreed with this idea. Also, 75.2% of the respondents agreed with statement: "Distance education increases the flexibility of universities in making teaching strategies" and 13.3% of them disagreed. Regarding the statement: "The rise of distance education gradually replaces traditional teaching", 50% and 28% of the respondents were agreed and disagreed, respectively. Relatively a small percentage of the respondents (19.4%) believed that "Distance education decrease mutual understanding between teachers and learners".

Thirteen percent (13%) of respondents agreed with the statement: "Distance education doesn't consider learners' individual preferences" and 78.4% of them disagreed with mentioned statement, too.

Finally, only 8.3% of respondents indicated that "Distance education decreases the teacher's teaching performance", meanwhile, most of them (77.7%) were disagree with this idea. The results indicated that agricultural faculty members ranked time as the primary barrier to using instructional technology. This included time to prepare course materials (m= 3.88, SD= 1.15) and time to participate in technical training (m= 3.67, SD =1.25). Respondents also rated lack of support and lack of hardware and software as barriers to their use of instructional technology.

At least one third of all respondents expressed dissatisfaction with technology for teaching, technical computer support, and instructional design support at their institutions.

Table: 2
Attitudes of agricultural faculty members towards distance education

Statements	Strongly agree		Agree		Undecided		Disagree		Strongly disagree	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Distance education produces better learning results than traditional teaching	16	13.3	93	75.5	4	3.3	7	5.4	3	2.5
Distance education rapidly delivers knowledge and information to learners	15	12.6	91	73.1	5	4.3	8	6.8	4	3.2
Distance education effectively integrates teaching resources	15	12.6	82	66.5	10	8.3	12	9.7	4	2.9
Distance education increases the flexibility of universities in making teaching strategies	18	14.7	75	60.5	14	11.5	9	7.2	7	6.1
The rise of distance education gradually replaces traditional teaching	50	39.9	12	10.1	27	22	3	2.5	31	25.5
Distance education decrease mutual understanding between teachers and learners	3	2.5	20	16.9	14	11.5	75	60.5	11	8.6
Distance education doesn't consider individual preferences among learners	0	0	16	13	11	8.6	81	65.8	15	12.6
Distance education decreases the teacher's teaching performance	0	0	10	8.3	17	14	87	70.2	9	7.5

CONCLUSION

The study started by presenting data on respondents' familiarity with distance education. Most of the agricultural faculty members were familiar with distance education at moderate level. More than 80 percent of survey respondents indicated that they had moderate and high familiarity with distance education. In regarding the attitudes of agricultural faculty members, most of them believed to the distance education produce better learning results than traditional teaching. Also, most of the agricultural faculty members considered "distance education as a system to rapidly deliver knowledge and information to learners". At the same time, most of the agricultural faculty members believed that "distance education effectively integrates teaching resources and increases the flexibility of universities in making teaching strategies". In general, the results of this study regarding the attitudes of agricultural faculty members towards distance education indicated that respondents showed a positive attitude towards distance education.

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A THEORETICAL FRAMEWORK FOR QUALITY INDICATORS IN ELEARNING

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ABSTRACT

Advances in information and communication technologies, especially in Multimedia, Networking and Software Engineering allow the appearance of a new generation of computer-based training systems. Despite its obvious advantages in terms of reduced costs, simplified training programs and flexibility, e-learning was not always the miracle solution. Conceived as a powerful educational tool, e-learning was destined to change the face of learning but unfortunately, this change wasn't exactly the intended one. The constant interest in researching and testing the use of Information and Communication Technologies (ICT), eLearning and multimedia in the learning process led to educational imperatives about the indicators that can reveal the level of quality for teaching and management of the course. Modern eLearning solutions now recognize the importance of learning as a social process and offer possibilities for collaboration with other learners, for interaction with the learning content and for guidance from teachers, trainers and tutors. Our aim is to analyze the importance of using ICT in a "learning society".

The present paper focuses on the strong potential that ICT provides, in order to develop the learning possibilities among students. The great challenge is to draw up a quality indicators framework which can represent an instrument for teachers on how to organize their online course – including ways of developing the teaching methods.

Keywords: **e-learning critique, e-learning indicators, e-learning quality**

INTRODUCTION

In the last decade, the tremendous increase in the amount of available information was made possible through the enhancement of the access to computers and to the Internet. The information era enables increased information accessibility through more sophisticated tools. Education is facing many challenges in order to be made more relevant for the information society. In this society citizens have to be life-long learners, workers are expected to acquire knowledge and skills independently and to be able to communicate in a variety of contexts and by using a variety of means. This requires an important transformation of education, and Information and Communication Technologies (ICT) can be the means to realize that transformation (Fredriksson, Jedeskog, Plomp 2007).

Thus, one of the goals of the educational system should be to prepare students to take an independent and responsible role in the information society. Furthermore, this goal will be achieved only if the students acquire the necessary skills for working with large amounts of information from a wide range of sources (Barzilai, Zohar 2007; Land, Greene 2000; Salomon 2000). ICT-mediated learning has become an integral component of the education and training systems. Moreover, with the rise of information and communication technologies era, new competencies have become vital. Digital literacy, the ability to use ICT, is among the most important. Despite its obvious advantages in terms of reduced costs, simplified training programs and flexibility, e-learning is not always the miracle solution. Conceived as a powerful educational tool, e-learning was destined to change the face of learning. And, to be fair, it has. But unfortunately this change wasn't exactly the intended one. Despite the benefits, corporate e-learning has real problems in all stages of implementation:

Initial Design Issues

- **Lack of identification of real needs;**
- **Lack of analysis of the need even when it was identified;**
- **Poor overall strategic design decisions in areas such as: structure of the course, methods and media to be used, and course management and evaluation.**

Instructional Design and Development Issues

- **Lack of detailed instructional design;**
- **Failure to develop important instructional design elements such as authoring or graphic design;**
- **Lack of evaluation and revision of the instructional design resulting in no reiterative improvements.**

Dissemination and Implementation Issues

- **Problems in production, reproduction and distribution;**
- **Poor implementation and use of the e-learning that was delivered;**
- **Long term management and evaluation problems (Romiszowski, 2004).**

If we take into account these problems, we can state that a lot of corporate e-learning initiatives are failures; we mean that *the intended learning* was not actually achieved. Technologies such as Learning Management Systems (LMS) and Learning Content Management Systems (LCMS) are widely spread but they do not lead to the intended learning. All the technologies *with no effective online instruction* will not produce any significant learning results. There are some explanations for these shortcomings (Woodill, 2004):

- **The rush to launch the new educational courseware and educational technology on the market without a proper testing;**
- **Focus on new technology, not on instructional design;**
- **Lack of understanding of learning and teaching**
- **Lack of understanding of the unique teaching advantages of electronic media.**

In these circumstances there are lessons to be learned by the software providers. Technology-obsessed course developers who create highly interactive, very spectacular and very expensive multimedia courseware that dazzle the eye without informing the

mind, as well as courseware creators that offer numerous (maybe too numerous) simple programs, a kind of page-turners that are little more than PowerPoint presentations, need to take into account solid quality standards for e-learning and need to provide products that are based on sound educational principles.

ON QUALITY IN E-LEARNING

At first, Information and Communication Technologies (ICT) were means for the development of knowledge both for teachers and students. Now, ICT represents a facilitator for courses design and organization, for checkup and assessment the students' acquisitions. Moreover, through ICT we can shift the emphasis from a content centered learning to a student centered one – valuing the personality of the learner, their own learning pace, resources and limits. At the same time, learners develop computer using skills through the proposed exercises and tasks and the main advantage is that the teaching process emphasizes expanding skills, attitudes, personality and not only cognitive perspectives.

Definitions and usage of the terms *standards* and *quality* vary and may depend on the aims/purposes of the educational and historical context. Quality is used with much variability in meaning and may refer to a number of things, including individual student performance, the outputs and the content of an educational program, the student learning experience, the teaching provided etc.

- **We can mention some approaches to the *quality* concept:**
- **Quality as excellence – the traditional (often implicit) academic view which aims to demonstrate high academic standards.**
- **Quality as *zero errors* – most relevant in mass industry where detailed product specifications can be established and standardized measurements of uniform products can show conformity to them; in higher education it might be applied, e.g. to learning materials.**
- **Quality as *fitness for purposes* — focuses on "customers" (or stakeholders) "needs" (e.g. of students, employers, the academic community, government, or society), and/or as defined by the stated aims and *learning outcomes* of a curricula.**
- **Quality as enhancement – emphasizes continuous improvement.**
- **Quality as transformation – applies either to students' behavior and goals changing as a result of their studies or to socio-political transformation achieved through higher education.**
- **Quality as threshold – refers to meeting a minimum standard, as in *subject benchmarking*. Minimum standards are defined in most European higher education systems to enable a minimum, objective comparability of units or programs (Harvey, Burrows, Green, 1992).**

Quality of online teaching reflects the attributes of any effective teaching, whether in the traditional classroom or online. Both traditional classroom teachers and online teachers need to know their subjects and how to teach them. They also must know their students, stay up to date in their subject areas, and manage and monitor students' academic progress to ensure success. Quality in e-learning has a twofold significance in Europe: first, e-learning is associated in many discussion papers and plans with an increase in the quality of educational opportunities, ensuring that the shift to the information society is more successful.

This context is called 'quality through e-learning'. Second, there is a separate but associated debate about ways of improving the quality of e-learning itself. This context is called 'quality for e-learning' (Ehlers, U. D., Goertz, L., Hildebrandt, B., Pawlowski, J. M., 2005).

The eLearning domain is involved in a deep standardization process. Advances in information and communication technologies, and especially in Multimedia, Networking and Software Engineering allow the emergence of a new generation of computer-based training systems. Thus, institutional users of educational software are joining their efforts to achieve standards and recommendations to support the interoperation of heterogeneous learning systems. One of the main aspects subject to standardization is educational content organization (models to describe static and dynamic course structure). The course needs to facilitate the students' interaction with a dynamic content. This is an active, continuously evolving process that will last for years to come, until a clear, precise and generally accepted set of standards for educational-related systems is developed (Kloos D.C., Pardo, A., 2004).

Describing the standards and indicators for teaching and organizing courses in eLearning is a complex process, which occurs at several levels:

First, when talking about courses content, it is necessary to have a clearly specified aim, and the course objectives must be very specific (determining the cognitive operations and practical skills for students to achieve). It is also important to make teaching resource materials available to students (before the start of the course); the course content and timetable are stated in a clear, complete and explicit way. Tasks fulfilled at the course need to be clearly defined and stated in accordance with the purposes and objectives. Information on how to get in touch and to communicate with the teacher is offered to the students, parents and mentors (we include here the information on technical issues). Students are given information about the use of bibliographic materials – with a high emphasis on copyright (they have the responsibility to always specify the source of information). Also, measures must be taken that secure data is transmitted in the process of eLearning.

Expectations concerning academic integrity and standards/rules for Internet use are clearly specified for the teaching activities, online discussions, communicating by e-mail and plagiarism. Another indicator of quality is that referring to the resources available to the teacher - to be included in the common database to all learners. The teacher is the one that provides clarifications on how students will be evaluated.It is important that the teacher should have the prerequisite technology skills to teach online. This includes operations such as: ability to effectively use word-processing, spreadsheet and presentation software; effective use of Internet browsers, e-mail applications; ability to incorporate multimedia and visual resources into an online module; troubleshoot typical software and hardware problems; ability to use and incorporate subject-specific and appropriate software in an online learning module.As regards to *the course design*, its structure should reflect openness to the needs of learners and to include different ways of integrating multiple levels of information and approach to content. The course is organized into chapters and lessons; each chapter of the course introduces a clear description of objectives, activities and material resources and also includes a description of activities and the main information of each chapter. At the beginning of each lesson general information on the segments mentioned above will be provided to the students.

The course is structured so as to enable students to assimilate the knowledge and skills in a well developed manner; it includes active learning activities for the students. The course is designed in a manner that provides a wide range of possibilities to learn, to assimilate the information, based on the learners needs. The course provides opportunities for the students to use critical thinking, logical reasoning and to develop cognitive structures through learning strategies used. Also, the course will adjust to the principles and strategies of intercultural education - the data used will be correct, accurate, current and impartial. The teacher will take into account the students' preferences and learning styles and will offer them a variety of ways to relate to the content. He has the freedom to adapt learning activities to the students' needs, requirements and expectations.

The courses' design should develop appropriate ways for teacher-student interaction, including relevant feedback about the progress of each student. The course offers opportunities for development of proper teacher-student and student-student interaction, including a plan for monitoring the quality of these types of interactions. It will take into account that an effective interaction between the participants leads to an accurate understanding and assimilation of the material. Both organization and implementation of an online course raise many more questions than the organization of a traditional course.

The initiator of an on-line course has to answer certain questions: who will create and improve the electronic material used; what technical skills are necessary for students to access this material; who will offer students optimal feed-back; how comprehensive must the material provided be and which is the optimal degree of difficulty of the tasks (it is known that a material considered too facile generates disinterest, while one that is too difficult may generate difficulties on learning/working); how easily can students develop attitudes, skills and capacity to achieve performance in learning; which is the way students will be evaluated; how enjoyable it is for the student to work online.

STANDARDS IN E-LEARNING

Going into the *standards of teacher academic preparation*, we can mention first, that the teacher *has to have obtained vocational skills* through higher educational studies *and teaching skills.*

As indicators for achieving this standard we can state: developing specific academic skills on the subject they teach; knowing very well the content to be taught and the teaching methods to help the teacher in this regard; building the course structure based on students' learning styles; holding certifications which testify his professional qualification in the field of study; frequent updating of knowledge and of practical skills.

Regarding the standard which states that *the teacher should provide examples and to encourage lawful, ethical and proper behavior in using the available technology*, it is needed (in the framework of eLearning as a teacher): to stimulate the studies undertaken by trainees in connection with the ethical rules regarding the use of ICT in the society; to establish standards for the use of the Internet and assignments written by students; to know how the obstacles of technology might influence the learners' efficiency; to draw up the course in such a way as to respect the rights for intellectual

property and standards of fair use; to possess knowledge and skills related to online technology resources which should enable him to find solutions for any issues that may arise (from improper use of new technologies); to inform students about the rules of confidentiality and conditions in which their identity can be disclosed to colleagues.

Of major importance in the context of eLearning *is the teacher's ability to provide students with quick feedback, prompt response and clear tasks;* this ability helps them to have good results such as:

- **to know how to lead in communicating effectively to students;**
- **to use learning strategies to encourage collaborative learning, student-student interaction and active learning;**
- **to adapt the instructional style to the students' learning styles;**
- **to know how to continue his efforts (in a consistent manner)**
- **to help students obtain the best results;**
- **to establish teacher-student, student-student, teacher-parent relationships;**
- **to provide an online syllabus which offers details about the relations established during the eLearning process about teacher and student roles , about the criteria for passage from one level of training to another, about what is considered an undesirable behavior for both teacher and student;**
- **to provide a curriculum which will very concisely specify the course objectives, basic concepts that must be learned and the results of the learning process; to assist students to organize their time more efficiently, to monitor the progress of each individual student and to help (by special programs) the students who are experiencing difficulties.**

Another standard is that *the teacher understands and is receptive to students with special needs*. In this case, the teacher needs to develop some skills such as: the ability to understand that students are different and, as a consequence, he should use appropriate methods to include all the students in the learning process; the capacity to use the activities, possibly modified, to meet all the learners' needs; the ability to adapt the educational process so that the educational goals are achieved in different ways; the capacity to encourage the collaboration and interaction between all students, to evaluate students' knowledge in a variety of forms.

***Teacher's experience as a student who has used the eLearning process* is decisive to the success of the educational process because they will be able to anticipate any kind of problems that may arise for the students, and also solutions that can be applied in such situations. Also, he will know how *to anticipate and prevent these problematic situations*.**

Indicators describing the performance of this standard are: teacher applies the experiences gained as a student involved in activities of eLearning as a resource to develop strategies and methods of teaching online; he holds the ability to anticipate problems and challenges that may arise in online classes. As regards the eLearning training methodology, the teacher must plan, develop and use strategies to encourage active learning, interaction, participation and collaboration in the online learning frame. With the development of ICT, education was practically revolutionized, the

permanent interaction between students, between students and tutor, but also between students and content resulting in a higher quality for on-line education, often more effective than traditional education. Thus, an on-line course offers a number of advantages: individual learning, developing metacognitive skills and capabilities operating on the text, developing the processes of knowledge, changing the traditional roles of the teacher, flexibility in choosing strategies.

The teacher demonstrates that he has methods, strategies and techniques that actively involve students in the learning process (e.g. solving tasks as a team; analysis and synthesis rather than passive reading); facilitates the interaction between students and encourages learning in a working group; builds and maintains relationships based on trust between students, helping to develop the necessary skills and supporting the spirit of creativity, critical thinking and independence in thinking; leads learning groups that are centered on objectives, conducts surveys, polls projects; knows how to respond to the needs and requirements of the learners belonging to other cultures and who are not native speakers of English; the teaching process differs depending on the students's learning styles assists/advises them in assimilating and understanding information correctly ; he is familiar with the pedagogical investigations which enable him to know the teaching methods and strategies.

From the perspective of the *technology used*, building online learning platforms will enable the teacher to add content, practical activities and/or evaluation procedures to extend the ways of learning. Browsing the online course pages should be easy; the course will use up possibility offered by cyberspace and will make resources available to students through various means: e.g. video, CD, iPod's. Specific tools and software, appropriate to the content will be used.

It is important for the teacher to have an engineer who can handle the coordination of technology. The course will be structured according to the principles of design applied to any context, being thus able to give access to it to all students. The engineer will advise the teacher on issues of technical support and course management. A prerequisite is the average level of knowledge of using the new technologies by both students and the teacher.

Assessment strategies are related to the purpose and objectives of the course - properly defined at the beginning of the educational process: this is the main dimension of the subject that underlines the quality of *students/learners' assessment*. Assessment in eLearning should be designed so that students can not pass on to the following sequence if they have not learned the one before. If the results are unsatisfactory, the students should be guided to a sequence which provides further explanations or supporting elements. Because this is a way of improvement, evaluation has to represent an opportunity to enhance learning, in other words, exercises and homework proposed on the assessment tests represent possibilities to learn and not just a way of checking the knowledge aquired

The teacher will *demonstrate that he has skills that are necessary for assessments in eLearning so that methods and instruments used for assessment be valid and reliable.* He will make or select appropriate tools for assessing learning; will implement materials and online assessment tools.

Assessment strategies and instruments used in these meaning make students become aware of their progress (beyond the grades obtained – which do not always indicate the true knowledge level of the individual). The most effective strategies for assessment are hardly predictable and very flexible.

***The teacher will use effective strategies involving self-evaluation (both for him and for the students)*. He uses assessment methods of the initial students' preparation, of their ability to understand the course content and he proposes ways to self-evaluation, giving the students such opportunities at the end of each chapter.Analysis of *the course management and evaluation* involves making available to any interested person the students' evaluations about the effectiveness of the course. The course is periodically evaluated and the results are used as the basis for its development. Accreditation by specialized institutions is important (one must remember that assessment is done technically too). The most important trend of the researches and studies in eLearning quality was based on the following dimensions:**

- **learners must play a key part in determining the quality of e-learning services;**
- **countries must develop a culture of quality in education and training;**
- **quality must play a central role in education and training policy;**
- **quality must not be the preserve of large organizations;**
- **support structures must be established to provide competent, service-oriented assistance for organizations' quality development;**
- **open quality standards must be further developed and widely implemented;**
- **interdisciplinary quality research must become established in future as an independent academic discipline;**
- **research and practice must develop new methods of interchange;**
- **quality development must be designed jointly by all those involved;**
- **appropriate business models must be developed for services in the field of quality. (Ehlers, Goertz, Hildebrandt, Pawlowski, 2005).**

We believe that future shapes of eLearning (including courses' design) will engage the learner in a two-way type of learning that involves simulation of real world events and any kind of collaboration with the other learners and the instructor (Brian W. Ruttenbur, Ginger C. Spickler, 2000). As ICT has penetrated rapidly in almost all areas of activity, it is not possible to minimize their role in education. ELearning involvement in the teaching process has brought significant contributions to the development of all educational dimensions. Therefore, it is necessary to try to establish and improve appropriate standards of eLearning quality.

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EFFECT OF TECHNOLOGY ON MOTIVATION IN EFL CLASSROOMS

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ABSTRACT

In language classrooms, being in unnatural conversational situations, students need motivation more than other learning milieus. Teachers try to capture the attention of students through various methods and techniques. Many researchers in EFL teaching profession have stated that good motivation has appositive effect on foreign language learning. The purpose of this study is to explore how technology could be used to increase students' motivation in EFL classrooms.

For this purpose; a questionnaire was administered to a group of students at Akdeniz University Preparatory Classes in 2007-2008 academic year. As a result it was found out that technology was a dynamic and challenging motivating factor in EFL classrooms and there may be some suggestions focusing on the achievement of learning objectives.

Keywords: **Motivation, EFL Activities, Use of Technology in EFL Classes.**

INTRODUCTION

For centuries foreign language teaching approaches, methods and techniques have been changing because of different factors. Learning a foreign language is a challenging process and students always need motivation and encouragement during this period. Technology might be one of the factors which affects students' attitude positively in the teaching/ learning process. Adıyaman (2002) defines one way of technological equipment such as radio, TV, cassettes, CD, DVD and two way of educational technological equipment used in EFL classrooms like e-mails, computers, interactive radio and television programs, teleconference and internet conferences.

The use of technology brings lot of advantages into the classroom. Students may have a chance to see the real world in the classrooms and they can be motivated easily. Ellis (1994) points out that creating challenging tasks and activities motivate the language learners. Effective language teachers should be enthusiastic and creative because language learners can lose their motivation and desire easily. Movies, music and different materials can help students' psychological and social improvement. Therefore use of technology, online / distance education may provide a good opportunity to develop and create different, enjoyable tasks in EFL classrooms. Demiray (2009) thinks that distance education has a great potential for global learning and it can offer new and active learning environment for language learners. Usun and Kömür (2009) claim that distance education and e-learning technologies can be used in ELT programs to motivate the students.

According to Wang (2004), when language learners have desirable and real communication factors, they can develop their language skills in the classroom. Using computers and every kinds of technological equipment gives students the sense of freedom and encouragement. With the help of technology students can be active, motivated and involved in language learning process. High quality of authentic materials and low price can be other advantages of technology and increase the popularity of distance education. Crystal (1997) assumes that educational technology takes a great role in EFL classrooms because of the current position of English as a global language. Jonassen (2000) discusses that technology in EFL classroom encourages not only the students but the teacher in a positive way. Brown (2003) explains that internet and distance education increase the quality of language learning and provide available education. Web-learning offers well-selected activities and interactive learning.

Stepp-Granny (2000) reports that technologically equipped classrooms increase student's motivation because of the interactive nature of the activities. İşman et all (2004) implies that students always have positive and optimistic ideas for using computer in the classrooms and it gives opportunity students to create new ideas and develops their problem solving skills while providing self-responsibility thus students feel comfortable. Kang (1999) explains the positive effects of computer and technology in EFL classrooms by allowing the students to observe the real life situation and meaningful communication. Zengin (2007) explains the importance of technological classrooms because students are more motivated and interested in multi-media and technological lessons. Mayora (2006) tells the advantages of multimedia technology in EFL programs and adds that using multimedia increases students' interest in the classroom. Teachers can use online magazines, newspapers as authentic materials. Harmer (2007) points out that student can become active and dynamic learners by means of online education and also mentions the importance of computer-based technological classrooms because they provide learners with unreachable and fascinating activities which attract and motivate them.

Ellinger et all (2001) conducted a study on the use of internet in language classes. They believe that internet, as an important tool, encourages students, increases autonomous learning potential and brings enthusiasm into the classroom. Arcairo (1993) states that using authentic video in EFL classrooms can be interesting and attractive for communicative dialogues. Chapple and Curtis (2000) point out that using authentic films in the classrooms motivate the learners because many contextual clues of films' and they make learners use both of their hemispheres which are very important for language learning. Using technology in EFL classrooms improve students' four skills. Kung (2003) explains his research results about web and language learning. According to his research web using enriches and supports good motivation in the development of speaking skill. Case and Truscott (1999) tell that computers and internet are good sources in developing reading skills. Computer-based reading texts are authentic, more effective and motivating for every kind of language learners. Anderson and Speck (2001) mention that using technology in the classroom not only motivates the learners but engages them in speaking, reading, listening and writing easier. Leu and Leu (1997) think that electronic books and stories used in EFL classrooms enrich students' interest and lead them to be a good reader. Deeler and Grey (2000:75) indicate that the real motivating factor in using the internet for speaking skill can be videoconferencing and cross-curricular projects.

Students can publish a class web page of their own, they can prepare simple fancy programs which are enjoyable during the difficult language learning process consequently they improve their writing skill. Distance learning is not limited so students can use this limitless knowledge for their improvement. Krajka (2000) explains the importance of internet and adds that with the help of websites and on-line techniques, writing skill can be more interesting, appealing and motivating.

It can be said that technology also allows weak learners to reveal their capacity and creative mind. In addition to providing excellent authentic materials, technology offers language learners a chance to use daily conversations and rich vocabulary. In the study on the internet and computer – based classrooms conducted by Kang and Dennis (1995), there are interactive vocabulary choices for EFL students. Belz (2002) thinks that technology brings meaningful and communicative materials into the classroom such as tele-collaboration and interaction.

Authentic materials which can be accessed in the internet easily are opportunities for language learners to compile interesting information and report it in English so they may improve both their reading and writing skills at the same time. There is plenty of advantages of using technology in EFL classrooms for providing easy, practical and authentic activities as well as creative tasks. Although technology does not substitute for a good teacher it will motivate the language learners and enrich classroom atmosphere. In order to use technology in the classroom effectively teachers have important roles, they should plan and organize the lessons according to these materials. First they should plan, set up and use the correct equipment in EFL classrooms. (Deeler and Gray: 2000).

The demand of technology and distance education has been increasing rapidly nowadays but they should reach to many students in order to be more effective. Demiray (2009) claims that education is a kind of service which needs to be marketed well. Marketing of this service provides wide opportunities for language learners. Mirici (2009) indicates that the needs of technology in ELT markets can be solved and supported by distance education. Usun and Kömür (2009) think that distance education can take an important role as a facilitator for the marketing of ELT programs.

In Turkey students learning English especially in preparatory schools at universities often seem uninterested in learning the language. One of the most important reasons is the lack of enough motivation (Acat and Demiral: 2002). This is true for the students of the English Language Preparatory School at Akdeniz University. As students do not pay much attention to the lessons, they cannot live up to the standards that the school has aimed at. One of the reasons for their failure can be their lack of motivation.

Thus, the factors which motivate them should be determined to achieve effective learning. Using technology, internet, computer-based authentic materials, video, CDs and distance education can be one of the good and effective solutions to overcome students' motivational problems in the classrooms.

Consequently, this study aims to find out the role of technology on the motivation of EFL learners in language classes and to put forward some practical ideas in order to make language learning more effective.

RESEARCH QUESTIONS

This study addresses the following questions;

- **Is technology a good motivator in EFL classes?**
- **What is the ratio of students who support technology for good motivation in EFL classes?**
- **Is there a significant difference between male and female students' ideas on using technology for better motivation in EFL classes?**
- **Is there a s ignificant difference between natural science and social science students' ideas on technology usage for better motivation in EFL classrooms?**
- **Should language teachers use different technological devices in order to increase their students' motivation?**

IMPORTANCE OF THE STUDY

This study aims to modify the role of technology on motivation in the language classrooms and to review the students' ideas on how to use technological equipment effectively. This study can also be useful for EFL teachers to discover the role of the technology in their teaching process.

PURPOSE OF THE STUDY

The purpose of this study is to be of help for those who lack motivation and introduce the effect of technology for a fruitful foreign language teaching process.

METHOD OF THE STUDY

This descriptive study is based on a questionnaire which was prepared on purpose. The groups were selected among Akdeniz University Preparatory Classes in the academic year 2007-2008.

The questionnaire was composed of 15 questions about motivation and technology use in EFL classrooms. The questionnaire was administered to a representative group and then an item analysis was done. It was examined by three leading experts in this field. Next, it was administered to 350 students.

The students were selected from two fields of study randomly; Social Sciences and Natural Sciences. For the analysis of the data SPSS chi-square statistical analysis was used and the significant level was taken as. 05.

FINDINGS

There were 350 students involved in this research; 198 from natural sciences departments and 152 from social sciences departments.186 of them were male and 164 of them were female students. There were 15 questions about technology and how to use it as a means of motivation in the language classes.
Findings based on the relation between use of technology and motivation can be seen in Table: 1.

Table: 1
Use of Technology in our language classrooms increases my motivation

	Agree		Neutral		Disagree		Total	
	N	%	N	%	N	%	N	%
Male	131	70, 4	25	13, 4	30	16, 1	186	100, 0
Female	128	78, 0	16	9, 8	20	12, 2	164	100, 0
Total	259	74, 0	41	11, 7	50	14, 3	350	100, 0

$\chi^2 = 2.656$ **P= 0.267** **df=2** **P>.05**

Both female and male students believe that technology in EFL classrooms motivate them. 70.4 % of the male students and 78.0 % of the female students think that technology in their language classrooms increases their motivation.

When Table 1 is examined it is seen that there is not a statistically significant relationship between male and female student's ideas on technology and motivation ($\chi^2 = 2.656$; P>.05).

For question 2 chi-square results are presented in Table: 2.

Table: 2
We should use technology in our classroom for every lesson

	Agree		Neutral		Disagree		Total	
	N	%	N	%	N	%	N	%
Male	71	38, 2	48	25, 8	71	38, 2	186	100, 0
Female	82	50, 0	51	31, 1	31	18, 9	164	100, 0
Total	153	43, 7	99	28, 3	98	28, 0	350	100, 0

$\chi^2 = 13.38$ **P= 0.001** **df=2** **P < .01**

Table 2 shows that 50 % of female students want to have all their lessons with technology on the other hand 38.2 % of male students want technology in their every lesson.

As it is seen here there is a significant difference between male and female students' ideas on technology ($\chi^2 = 13.38$; P < .01).

Female students want to use technology in every lessons more than male student.

In the following table (Table: 3) the effects of good authentic material on active learning process can be seen.

Table: 3
Authentic materials downloaded from the internet make me active in the learning process

	Agree		Neutral		Disagree		Total	
	N	%	N	%	N	%	N	%
Male	132	71, 0	29	15, 6	25	13, 4	186	100, 0
Female	140	85, 4	11	6, 7	13	7, 9	164	100, 0
Total	272	77, 7	40	11, 4	38	10, 9	350	100, 0

$\chi^2 = 11.105$ **P= 0.040** **df=2** **P < .05**

71 % of male and 85.4 % female students think that authentic materials which are taken from the internet make them active.

As can be seen there is a significant difference about authentic materials between male and female students ($\chi^2 = 11.105$; P < .05).

Computer-based classroom atmosphere is presented below in Table: 4.

Table: 4
Computer-based teaching activities make the lessons more enjoyable.

	Agree		Neutral		Disagree		Total	
	N	%	N	%	N	%	N	%
Male	128	68, 8	23	12, 4	35	18, 8	186	100, 0
Female	123	75, 0	27	16, 5	14	8, 5	164	100, 0
Total	251	71, 7	50	14, 3	49	14, 0	350	100, 0

$\chi^2 = 8.334$ **P= 0.015** **df=2** **P < .05**

68.8 % of male and 75.0 % of female students say that computer based classrooms make the lessons more enjoyable.

It can be said that there is a significant difference between female and male students ($\chi^2 = 8.334$; P <.05). In other words students' ideas on computer-based lessons can be changeable depending on their gender.

Table: 5 shows students' ideas on technology.

Table: 5
Technology can be boring and unnecessary.

	Agree		Neutral		Disagree		Total	
	N	%	N	%	N	%	N	%
Male	49	26, 3	40	21, 5	97	52, 2	186	100, 0
Female	27	16, 5	36	22, 0	101	61, 6	164	100, 0
Total	76	21, 7	76	21, 7	198	56, 6	350	100, 0

$\chi^2 = 5.368$ **P= 0.068** **df=2** **P>.05**

52.2 % of male and 61.6 % of female students do not agree the idea that technology can be boring and unnecessary.

As can be seen from Table 5, there is no statistically significant difference with respect to the students' genders ($\chi^2 = 5.368$; P>.05).

Table: 6 shows the results of question 6.

Table: 6
I can understand language better
when my teacher uses technology in the class.

	Agree		Neutral		Disagree		Total	
	N	%	N	%	N	%	N	%
Male	68	36, 6	45	24, 2	73	39, 2	186	100, 0
Female	73	44, 5	57	34, 8	34	20, 7	164	100, 0
Total	141	40, 3	102	29, 1	107	30, 8	350	100, 0

$\chi^2 = 14.756$ **P= 0.001** **df=2** **P < .01**

36.6 % of male and 44.5 % of female students think that they can understand language better when the teacher uses technology in the classrooms.

As it can be understood from the table there is a statistically significant difference between female and male students' ideas ($\chi^2 = 14.756$; P < .01).

Female students can understand the language better if the teacher uses technology.

Findings based on the question 7 are presented below in Table: 7.

Table: 7
We always need technological devices in language classrooms.

	Agree		Neutral		Disagree		Total	
	N	%	N	%	N	%	N	%
Male	76	40, 9	56	30, 1	54	29, 0	186	100, 0
Female	56	34, 1	52	31, 7	56	34, 1	164	100, 0
Total	132	37, 7	108	30, 9	110	31, 4	350	100, 0

$\chi^2 = 1.843$ **P= 0.398** **df=2** **P>.05**

40.9 % of male and 34.1 % of female students say that they always need technological materials in the classrooms.

As can be seen there is not a significant difference between two genders on technological material usage in the classrooms ($\chi^2 = 1.843$; P>.05).

In the following table the results of question 8 are presented.

Table: 8
Different technological devices should be used
in the class to increase my motivation for learning English.

	Agree		Neutral		Disagree		Total	
	N	%	N	%	N	%	N	%
Male	125	67. 2	37	19. 9	24	12. 9	186	100, 0
Female	123	75. 0	26	15. 9	15	9. 1	164	100, 0
Total	248	70. 9	63	18. 0	39	11. 1	350	100, 0

$\chi^2 = 2.659$ **P= 0.265** **df=2** **P>.05**

67.2 % of male and 75.0 % of female students want different technological devices for motivation.

As it is seen from Table: 8 there is a significant difference between two genders ($\chi^2 = 2.659$; P>.05).

Findings based on the question 9 can be seen in Table: 9.

Table 9
If my teacher uses powerpoint presentations, lessons can be more enjoyable.

	Agree		Neutral		Disagree		Total	
	N	%	N	%	N	%	N	%
Male	103	55. 4	49	26. 3	34	18. 3	186	100, 0
Female	97	59. 1	39	23. 8	28	17. 1	164	100, 0
Total	200	57. 1	88	25. 1	62	17. 7	350	100, 0

$\chi^2 = 0.517$ **P= 0.772** **df=2** **P>.05**

55.4 % of male and 59.1 % of female students think that lessons can be more enjoyable with powerpoints. There is no statistically significant difference between male and female students' ideas on using PowerPoint in the classrooms ($\chi^2 = 0.517$; P>.05).

The results of question 10 are illustrated in Table: 10.

Table: 10
When we use technology every time, it makes the lessons boring.

	Agree		Neutral		Disagree		Total	
	N	%	N	%	N	%	N	%
Male	110	59. 1	23	12. 4	53	28. 5	186	100, 0
Female	109	66. 5	27	16. 5	28	17. 1	164	100, 0
Total	219	62. 6	50	14. 3	81	23. 1	350	100, 0

$\chi^2 = 6.785$ **P= 0.034** **df=2** **P < .05**

59.1% of male and 66.5 % of female students thinks that technology can be boring when it is used every time.

There is a significant difference between male and female students' ideas ($\chi^2 = 6.785$; P < .05).

Female students say that too much technology can be boring in the classrooms.

Table: 11 shows the chi-square statistical results for question 11.

Table: 11
Films, videos, CDs and e-learning can be helpful to develop my language skills .

	Agree		Neutral		Disagree		Total	
	N	%	N	%	N	%	N	%
Male	137	73. 7	33	17. 7	16	8. 6	186	100, 0
Female	142	86. 6	17	10. 4	5	3. 0	164	100, 0
Total	279	79.7	50	14. 3	21	6. 0	350	100, 0

$\chi^2 = 9.976$ **P= 0.007** **df=2** **P < .01**

73.7 % of male and 86.6 % of female students believe that they can develop their language skills with authentic films, videos, CDs and e-learning.

The table reveals that there is a significant difference between male and female students ($\chi^2 = 9.976$; P < .01). Findings based on the relationship between technology and project works are presented in Table: 12.

Table: 12
I should use technology during the project works in EFL classes.

	Agree		Neutral		Disagree		Total	
	N	%	N	%	N	%	N	%
Male	90	48. 4	32	17. 2	64	34. 4	186	100. 0
Female	64	39. 0	40	24. 4	60	36. 6	164	100. 0
Total	154	44. 0	72	20. 6	124	35. 4	350	100. 0

$\chi^2 = 4.047$ **P= 0.132** **df=2** **P>.05**

48.4 % of male and 39 % of female students say that they should use technology in order to develop their projects.

The table shows that there is not a statistically significant difference between two genders ($\chi^2 = 4.047$; P>.05).

Table: 13 shows the results of the students' ideas' on teleconferencing.

Table: 13
If we have a chance of teleconferencing via distance education with other universities, it can be challenging for me.

	Agree		Neutral		Disagree		Total	
	N	%	N	%	N	%	N	%
Male	107	57. 5	41	22. 0	38	20. 4	186	100. 0
Female	101	61. 6	34	20. 7	29	17. 7	164	100. 0
Total	208	59. 4	75	21. 4	67	19. 1	350	100. 0

$\chi^2 = 0.656$ **P= 0.720 df=2 P>.05**

57 .5 % of male and 61.6 % of female students think that teleconferencing with the other universities via distance education can be challenging.

However, there is no significant difference between two genders ($\chi^2 = 0.656$; P>.05).

Question 14 is illustrated below in Table: 14.

Table: 14
My teacher should use more technology in the classrooms.

	Agree		Neutral		Disagree		Total	
	N	%	N	%	N	%	N	%
Male	91	48. 9	30	16. 1	65	34. 9	186	100. 0
Female	83	56. 6	40	24. 4	41	25. 0	164	100. 0
Total	174	49. 7	70	20. 0	106	30. 3	350	100. 0

$\chi^2 = 5.899$ **P= 0.520 df=2 P>.05**

48.9 % of male and 56.6 % of female students think that their teachers should use more technology in the classroom.

It can be said that there is no significant difference between two genders ($\chi^2 = 5.899$; P>.05).

Findings based on the question 15 can be seen in Table: 15.

Table: 15
Computer-based lessons are more enjoyable and effective than traditional lessons.

	Agree		Neutral		Disagree		Total	
	N	%	N	%	N	%	N	%
Male	113	60. 8	42	22. 6	31	16. 7	186	100. 0
Female	104	63. 4	28	17. 1	32	19. 5	164	100. 0
Total	217	62. 0	70	20. 0	63	18. 0	350	100. 0

$\chi^2 = 1.824$ **P= 0.402** **df=2** **P>.05**

60.8 % of male and 63.4 of female students say that computer-based lessons are more enjoyable and effective than traditional ones.

However, there is not significant difference between two genders ($\chi^2 = 1.824$; P>.05).

In this research not only the language learners' gender but their department was examined and their ideas based on technology and language learning were discussed. There were two different departments in this research.198 % of the students were from natural science and 152 of them were from social science departments.

Their ideas on technology usage and motivation are as follows: Table: 16 shows the differences between social sciences and natural sciences students' ideas on technology use and motivation.

Table: 16
Use of technology in our language classrooms increases my motivation.

	Agree		Neutral		Disagree		Total	
	N	%	N	%	N	%	N	%
Natural Science	142	71. 7	31	15. 7	25	12. 6	198	100. 0
Social Science	117	77. 0	41	6. 6	25	12. 6	152	100. 0
Total	259	74. 0	41	11. 7	50	14. 3	350	100. 0

$\chi^2 = 7.638$ **P= 0.022** **df=2** **P < .05**

71 % of natural science students and 77 % of social science students think that using technology in classrooms increases their motivation.

There is a significant difference between two departments (χ^2 =7.638; P < .05).

Table: 17 shows the results of students' ideas from different departments on too much technology used in language classes.

Table: 17
We should use technology in our classroom for every lesson.

	Agree		Neutral		Disagree		Total	
	N	%	N	%	N	%	N	%
Natural Science	50	25. 3	63	31. 8	85	42. 9	198	100. 0
Social Science	48	31. 6	36	23. 7	68	44. 7	152	100. 0
Total	98	28. 0	99	28. 3	153	43. 7	350	100. 0

χ^2 =3.328 P= 0.189 df=2 P>.05

42.9% of natural science and 44.7 % of social science students do not think that they should use technology in every lesson.

As can be seen from the table there is not significant difference between two departments (χ^2 =3.328; P> .05).

Table: 18 shows the results of question 3 about internet materials.

Table: 18
Authentic materials downloaded from the internet make me active in learning process.

	Agree		Neutral		Disagree		Total	
	N	%	N	%	N	%	N	%
Natural Science	162	81. 8	20	10. 1	16	8. 1	198	100. 0
Social Science	110	72. 4	20	13. 2	22	14. 5	152	100. 0
Total	272	77. 7	40	11. 4	38	10. 9	350	100. 0

χ^2 =4.891 P= 0.087 df=2 P>.05

81.8 % of natural science and 72.4 % of social science students think that good authentic materials available on the net make them active. There is not a significant difference between natural science and social science students (χ^2 =4.891; P>.05).

Table: 19 shows the results of question 4.

Table: 19
Computer-based teaching activities make the lessons more enjoyable.

	Agree		Neutral		Disagree		Total	
	N	%	N	%	N	%	N	%
Natural Science	140	70. 7	33	16. 7	25	12. 6	198	100. 0
Social Science	111	73. 0	17	11. 2	24	15. 8	152	100. 0
Total	251	71. 7	50	14. 3	49	14. 0	350	100. 0

$\chi^2 = 2.526$ **P= 0.289 df=2 P>.05**

70.7 % of natural science and 73.0 of social science students say that computer-based classrooms make the lessons more enjoyable.

There is no significant difference between two departments ($\chi^2 = 2.526$; P>.05).

Table: 20
Technology can be boring and unnecessary.

	Agree		Neutral		Disagree		Total	
	N	%	N	%	N	%	N	%
Natural Science	118	59. 6	36	18. 2	44	22. 2	198	100. 0
Social Science	80	52. 6	40	26. 3	32	21. 1	152	100. 0
Total	198	56. 6	76	21. 7	76	21. 7	350	100. 0

$\chi^2 = 3.388$ **P= 0.184 df=2 P>.05**

59.6 % of natural science and 52.6 of social science students think that using technology every time can be boring. The table shows that there is not a statistically significant difference between two departments ($\chi^2 = 3.388$; P>.05).

Findings based on question 6 can be seen in Table: 21.

Table: 21
I can understand language better
when my teacher uses technology in the class

	Agree		Neutral		Disagree		Total	
	N	%	N	%	N	%	N	%
Natural Science	68	34. 3	62	31. 3	68	34. 3	198	100. 0
Social Science	73	48. 0	40	26. 3	39	25. 7	152	100. 0
Total	141	40. 3	102	29. 1	107	30. 6	350	100. 0

χ^2 =6.856 P= 0.320 df=2 P>.05

34.3 % of natural science and 48 % of social science students think that they can understand language better when their teacher uses technology in the class.

There is no significant difference between two departments (χ^2 =6.856; P>.05). Findings based on question 7 are presented in Table: 22.

Table: 22
We always need technological devices in language classrooms

	Agree		Neutral		Disagree		Total	
	N	%	N	%	N	%	N	%
Natural Science	82	41. 4	51	25. 8	65	32. 8	198	100. 0
Social Science	50	32. 9	57	37. 5	45	29. 6	152	100. 0
Total	132	37.7	108	30. 9	110	31. 4	350	100. 0

χ^2 =5.762 P= 0.056 df=2 P>.05

41.4 % of natural science and 32.9 of social science students think that they always need technological materials in language classrooms.

There is no significant difference between two departments (χ^2=5.762; P>.05).In the following table (Table: 23) students' ideas on technological devices can be seen.

Table: 23
Different technological devices should be used in the class to increase my motivation for learning English

	Agree		Neutral		Disagree		Total	
	N	%	N	%	N	%	N	%
Natural Science	146	73. 7	33	16. 7	19	9. 6	198	100. 0
Social Science	102	67. 1	30	19. 7	20	13. 2	152	100. 0
Total	248	70. 9	63	18. 0	39	11. 1	350	100. 0

$\chi^2 = 1.953$ **P= 0.377 df=2 P>.05**

73.7 % of natural science and 67.1 % of social science students think that different technological devices should take place in the class to increase their motivation for learning English.

As can be seen from the table there is no statistically difference between two departments ($\chi^2 = 1.953$; P>.05).

Table: 24 show students' ideas on powerpoint presentations.

Table: 24
If my teacher uses power point presentations, lessons can be more enjoyable.

	Agree		Neutral		Disagree		Total	
	N	%	N	%	N	%	N	%
Natural Science	114	57. 6	45	22. 7	39	19. 7	198	100. 0
Social Science	86	56. 6	43	28. 3	23	15. 1	152	100. 0
Total	200	57. 1	88	25. 1	62	17. 7	350	100. 0

$\chi^2 = 2.091$ **P= 0.351 df=2 P>.05**

57.6 % of natural science and 56.6 % of social science students think that lessons can be more enjoyable when the teacher uses powerpoints.

There is not a significant difference between two departments ($\chi^2 = 2.091$; P>.05).

The results of question 10 are presented in Table: 25.

Table 25
When we use technology every time, it makes the lessons boring

	Agree		Neutral		Disagree		Total	
	N	%	N	%	N	%	N	%
Natural Science	121	61. 1	31	15. 7	46	23. 2	198	100. 0
Social Science	98	64. 5	19	12. 5	35	23. 0	152	100. 0
Total	219	62. 6	50	14. 3	81	23. 1	350	100. 0

$\chi^2 = 0.764$ P= 0.683 df=2 P>.05

61.1 % of natural science and 64.5 % of social science students think that technology can be boring when it is used every time.

There is not a significant difference between two departments ($\chi^2 = 0.764$; P>.05).

Findings based on question 11 can be presented in Table: 26.

Table 26
Films, videos, CDs and e-learning can be helpful to develop my language skills.

	Agree		Neutral		Disagree		Total	
	N	%	N	%	N	%	N	%
Natural Science	160	80. 8	29	14. 6	9	4. 5	198	100. 0
Social Science	119	78. 3	21	13. 8	12	7. 9	152	100. 0
Total	279	79. 7	50	14. 3	21	6. 0	350	100. 0

$\chi^2 = 1.699$ P= 0.428 df=2 P>.05

80.8 of % natural science and 78.3 % of social science students think that authentic films, videos, CDs and e-learning develop their language skill. There is not a statistically significant difference between two departments ($\chi^2 = 1.699$; P>.05).

In the following table (Table: 27), the results of question 12 have been shown.

Table: 27
I should use technology during my project works in EFL classes

	Agree		Neutral		Disagree		Total	
	N	%	N	%	N	%	N	%
Natural Science	85	42. 9	45	22. 7	68	34. 3	198	100. 0
Social Science	39	25. 7	27	17. 8	86	56. 6	152	100. 0
Total	124	35. 4	72	20. 6	154	44. 0	350	100. 0

$\chi^2 = 18.073$ **P= 0.000** **df=2** **P < .001**

42.9 % natural science and 25.7 % of social science students think that they should use technology during the development of their project in EFL classrooms. According to chi-square analysis, there is a significant difference between natural science and social science students ($\chi^2 = 18.073$; P < .001).

It is clear that natural science students are more familiar to technical equipment than social ones.

Table: 28 shows the results of question 13 about the effect of teleconferencing.

Table: 28
If we have a chance of teleconferencing via distance education with other universities, it can be challenging for me

	Agree		Neutral		Disagree		Total	
	N	%	N	%	N	%	N	%
Natural Science	127	64. 1	34	17. 2	37	18. 7	198	100. 0
Social Science	81	53. 3	41	27. 0	30	19. 7	152	100. 0
Total	208	59. 4	75	21. 4	67	19. 1	350	100. 0

$\chi^2 = 5.581$ **P= 0.061** **df=2** **P>.05**

64.1% of natural science and 53.3 % of social science students think that teleconferencing via distance education with the other universities can be challenging. There is not a significant difference between two departments ($\chi^2 = 5.581$; P>.05).

Question 14 represents the results of students' ideas about too much technology used in class.

Table: 29
My teacher should use more technology in the classrooms

	Agree		Neutral		Disagree		Total	
	N	%	N	%	N	%	N	%
Natural Science	101	51. 0	34	17. 2	63	31. 8	198	100. 0
Social Science	73	48. 0	36	23. 7	43	28. 3	152	100. 0
Total	174	49. 7	70	20. 0	106	30. 3	350	100. 0

$\chi^2 = 2.316$ **P= 0.314 df=2 P>.05**

51% of natural science and 48 % of social science students say that their teacher should use more technology in the classroom. There is not a significant difference between two departments ($\chi^2 = 2.316$; P>.05).

Question 15 is represented in Table: 30.

Table: 30
Computer-based lessons are more enjoyable and effective than traditional lessons

	Agree		Neutral		Disagree		Total	
	N	%	N	%	N	%	N	%
Natural Science	129	65. 2	36	18. 2	33	16. 7	198	100. 0
Social Science	88	57. 9	34	22. 4	30	19. 7	152	100. 0
Total	217	62. 0	70	20. 0	63	18. 0	350	100. 0

$\chi^2 = 1.930$ **P= 0.381 df=2 P>.05**

65.2 % of natural science and 57.9 % of social science students think that computer-based lessons are more enjoyable and effective than traditional lessons. There is not a significant difference between two departments ($\chi^2 = 1.930$; P>.05).

CONCLUSION AND SUGGESTIONS

In this research it can be said that interestingly there is a significant difference between female and male students' ideas on using technology. Female students want to use technology in the classroom more than male students and they think that computer-based classrooms make the lessons more enjoyable.

Female students also said that authentic films, videos, CDs and e-learning could develop their language skills. According to all students participated in this research, authentic materials which are available on the internet were effective, enjoyable, interesting and useful for them.

The analyses of the data have proved that effective EFL activities can be possible by means of technology. It also revealed the fact that EFL students want their teachers to use technology in their classrooms. Most of the students using technology increase their motivation and they point out that the most important equipment is computer connected projector in the classrooms.

In this research it was also found that foreign language learning seemed to be affected by different technological equipment such as computers, projectors, video, films, internet, e-learning and multi-media. Students' responses have showed that there is great relation between language-learning motivational factors and using technology. Similarly, Jarvis (2005) suggests that young generation these days like task-based approaches by using different technological devices in the classrooms. The respondents in this research also believe that it could be boring when the teacher uses technology every time. They also claim that teleconferencing via distance education with other universities could be challenging for them.

In conclusion, it can be said that the use of technology in EFL classrooms provides meaningful and interesting process in language learning and students can be more motivated with this technological development in EFL classrooms.

As it is known learning a foreign language is a complex process, learners need motivation and encouragement in this difficult field. Technological-based classrooms, internet and distance education may be good solutions for de-motivated students. According to the results, the following suggestions could be presented:

- **Technology should take place in English language curriculum, which can create a lively classroom atmosphere and facilitate learning.**
- **Instructors at universities should focus on the importance of using technology and use authentic and interactive activities for maximum success in EFL classrooms.**
- **Materials which are available on the internet should be selected according to the needs and interests of the students.**
- **The teacher should not think that using technology is the only solution for good motivation; the lessons should be based on well designed technological classrooms and pedagogical considerations.**
- **A good teaching-learning process should be supported by technological equipment, which will provide students with more interest.**
- **Language learners can be encouraged to use distance education for active learning.**
- **Students should be encouraged to use computers and other technological devices, these efforts can increase students' motivation in English courses and as a result of this, effective and successful goals can be achieved.**

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APPENDIX

Gender: Male ---- Female ------
Department: Natural Science ------ Social Science -------

For each of the statements below, please indicate the extent of your agreement or disagreement by placing a tick in the appropriate column.	Agree	Neutral	Disagree
1- Use of Technology in our language classrooms increases my motivation.			
2- We should use technology in our classroom for every lesson.			
3- Authentic materials downloaded from the internet make me active in the learning process.			
4- Computer-based teaching activities make the lessons more enjoyable.			
5- Technology can be boring and unnecessary.			
6- I can understand language better when my teacher uses technology in the class.			
7- We always need technological devices in language classrooms.			
8- Different technological devices should be used in the class to increase my motivation for learning English.			
9- If my teacher uses power point resentations, lessons can be more enjoyable.			
10- When we use technology every time, it makes the lessons boring.			
11- Films, videos, CDs and e-learning can be helpful to develop my language skills.			
12- I should use technology during my project works in EFL classes.			
13- If we have a chance of teleconferencing via distance education with ther universities, it can be challenging for me.			
14- My teacher should use more technology in the classrooms.			
15- Computer-based lessons are more enjoyable and effective than traditional lessons.			

INVESTIGATING THE OPINIONS OF MoNE STAFF ABOUT INSET PROGRAMS VIA DISTANCE EDUCATION

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ABSTRACT

The aim of this study is to investigate the opinions of the Ministry of National Education (MoNE) staff about in-service training (INSET) programs via distance education. The subjects of this study were the staff (n=15) of the Inservice Training Department of MoNE in 2008. During the study, the qualitative data were collected through semi-structured interviews held with the (MoNE) staff by the researcher. The results of the interviews revealed the importance of needs assessment, the relationship between INSET program course content and participants' school curriculum, support mechanism in INSET programs via distance education, the application of what is learned and providing various opportunities to them that lead to their active involvement to the application of these programs, the characteristics of learning environments for these programs, INSET instructors' teaching competencies and skills to fulfill various roles in online learning environments, of measuring and evaluating the performance of teachers during INSET programs via distance education and of the effectiveness of INSET programs via distance education.

Keywords: In-service Training (INSET) Programs, Distance Education, INSET Programs via Distance Education

INTRODUCTION

Today "knowledge", "skills" and "competencies" become important concepts and an increase is observed in the amount of knowledge that people have and in the skills and competencies that people are required to have as the consequence of developments and changes taken place in the world. In line with these, teachers are required to develop themselves both professionally and personally in terms of their knowledge, skills and competencies they have in order to meet the demands of the societies in which they live and meet the diverse needs of their students. Delannoy (2000), at this point, states that teachers are now expected to know how to attend to the different learning needs of students and to create for their students exciting, age- and context–relevant learning experiences. In this respect, inservice training (INSET) programs are regarded as important means for the professional development of teachers.

In this regard, Street (2007) points out that teachers are different from their students in terms of their learning experiences and adds that they need ongoing professional development and support to update their acquired knowledge and skills with the ones that meet the demands of the environment in which the young people live.

On the other hand, technology, especially the Internet and World Wide Web (WWW), becomes an important part of our lives as its direct and indirect effects can be observed in all areas. Meanwhile, the effects of these technologies are observed in education as observed in all areas. According to Levin and Wadmany (2008), change is observed not only in the characteristics of schools but also in teachers' knowledge, skills and competencies as they are required to have technical skills, competencies, knowledge, and expertise about information and communication technologies (ICT) in education in addition to their teaching knowledge, skills and competencies. They (2008) explain these as follows: "ICT creates new possibilities, dilemmas, and directions and encourages teachers to harness the new opportunities that ICT offers to make teaching and learning more meaningful and rewarding (p: 234)".

In this regard, various distance education programs that are considered as an alternative means of traditional education programs could be observed as one of the effects of technology and technological developments into education. According to Beldarrain (2006), technology has played a key role in changing the dynamics of each delivery option over the years, as well as the pedagogy behind distance education and is responsible for distorting the concept of distance between learner and instructor, and enabling learners to access education at any time and from any place. In this regard, the Internet and WWW are considered as educational resources used not only in traditional education programs but also in distance education programs. In the meantime, Trepper (1999) states that the internet is growing rapidly as an educational resource, providing the means for live and self-study distance learning. According to Trepper (1999), internet training opportunities are fast, becoming efficient and cost-effective ways for companies to keep their IT staff trained and current. Burd and Buchanan (2004) define distance education as any learning that takes place when the teacher and the student are separated by physical distance. Galusha (1997) points out that distance learning is considered as an appropriate medium for reaching adult learners.

Therefore, they need to have flexibility to compete with priorities in their lives such as those at work, home and school. According to Galusha (1997), even though distance learning provides some advantages for adult learners, that is to say it provides flexibility that adults need to have and control in terms of using time, place, and pace of education.

Besides, it is articulated that adult learners cannot escape from the barriers they are facing. In other words, they can easily lose their motivation because they lack face-to-face interaction with their peers and teachers. Hence,they constantly and naturally deal with possible excessive prices and expenditures for initiating distance learning and lack of faculty support. In the meantime, according to Eastmond (1998), distance education has expanded to the Internet to the extent that in some settings the terms distance learning and Web-based courses are becoming synonymous. In this framework, in the present study, "distance education" is used as the synonymous of "distance learning", "e-learning" and "web-based learning".

Today, various INSET programs via distance education are observed for the training of inservice teachers in addition to traditional INSET programs organized for teachers. It is, also, observed that the Internet and WWW are widely used as a means of instruction during these programs.

In other words, it could be said that the distance education facilities are considered as part of teacher professional development programs through integrating various distance education means – especially Internet and WWW into teacher professional development programs. This fact could be interpreted as one of the possible reflections and implications of technological developments and changes observed in the world upon professional development and/or inservice training programs for teachers. As Chellman and Duchastel (2000) state, distance education is seen as an important answer to the professional development needs of large masses of the population. Meanwhile, Fok and Ip (2006) believe that "In an era of e-learning, Web-based learning should be an indispensable element of CPD activities in addition to the other activities such as participation in seminars, formal training courses, conferences, e-learning, and industrial visits (p:49)".

The literature (Boutelle, 2008; Bradburn, 2007; Erbas, Cakıroglu, Aydın and Beser, 2006; Fitzpatrick, 2007; Overbaugh and Lu, 2008; Slepkov, 2008; Stevens, To, Harris and Dwyer, 2008; Vavasseur and MacGregor, 2008; Yang and Liu, 2004) in relation to INSET programs via distance education indicates , positive effects and changes both in teachers' and their students. When the literature is examined, it is observed that positive changes and effects are observed not only in teachers' attitudes towards technology and feelings, ideas, beliefs, views, and about technology, beliefs and ideas about technology and technology integration to instruction, knowledge and skills about technology, their daily teaching as they integrate technology into their classroom practices, relations with their colleagues as they share and collaborate with them and work together, comfort and confidence levels to use technology , teaching self-efficacy beliefs and competencies, interests about technology, willingness and enthusiasm to learn and use technology, use of technology for different purposes, relations with their students but also in their students' relations with their peers during instruction, academic achievement levels, performance and learning, technology knowledge and skills, use technology effectively and efficiently for educational purposes, willingness and enthusiasm to participate in the courses and class activities, comfort and confidence levels to use technology, interest and motivation to learn technology and attitudes towards technology.

THE AIM OF THE STUDY

Temel (2007) points out that the Ministry of National Education (MoNE) in Turkey executes comprehensive studies in order for all individuals in education, mainly teachers and students, to benefit from ICT. He (2007) states that the training of educators on the use of ICT is considered as one of the subject areas emphasized by the Ministry of National Education in Turkey and in line with this fact, Temel (2007) expresses what to be done as follows: "For this purpose, the training of formator teachers and computer training of formator teachers is actualized through INSET programs in cooperation with the representative offices of international reputable companies, and during these programs both traditional and distance education methods are used".

As the consequence of these, various INSET training programs on computer and Internet technologies are organized by the Ministry of National Education in Turkey in recent years for teachers in order to equip, to develop, to update and to empower teachers' computer and Internet knowledge, skills, competencies and their classroom applications at their schools.

During these programs distance education facilities are implemented as web-based on internet. In this regard, the Ministry of National Education (2005) states that the necessary studies and procedures concerning putting into implementation of the "Teacher Training Project through Distance In-service Training Method" have already been completed in Turkey by activating the era's technology computer and internet as well as existing traditional methods and applications and it is also stated that the first example of this project will be on computer education for teachers and this project will be implemented as web-based on internet.

Within this framework, the aim of this study is to investigate the opinions of Inservice Training Department staff of the MoNE of Turkey about the planning, application and evaluation activities of INSET programs via distance education.

METHOD

Study Group

In the study, interviews were held with the staff (n=15) of Inservice Training Department of the Ministry of National Education of Turkey.

The staff that was selected randomly via simple random sampling technique formed the study group of the present study. When they are analyzed in terms of their genders, it is seen that 73.3 % (n=11) of them were male.

When the year of experience in teaching is concerned, it is observed that 40 % (n=6) of them were teaching between 6-10 years. It is seen that 66.6 % (n=10) of them were subject teachers in terms of their professional status.

Data Collection Instrument

In this study the researcher used a qualitative research method in order to collect more comprehensive data. Meanwhile the researcher used semi-structured interview technique in order to collect the qualitative data as the aim in semi-structured interviews is to find out whether the statements of the persons interviewed are coherent, what differences there are and to obtain true information about the subject by making a comparison. In semi-structured interviews, the questions are prepared before but the answer options are not defined.

In the present study, the researcher used the interview questions prepared and developed by Ozen (2008). It was reported by Ozen (2008) that the triangulation strategy was used to ensure the reliability and validity of the interview questions. One of the criteria used in ensuring validity and reliability in a qualitative research is "triangulation" and triangulation is used to obtain data with different methods collected for the research question and to test credibility of the findings obtained in this way as Yildirim and Simsek (1999) pointed out. Meanwhile, they (1999) stated that triangulation may also facilitate evaluation and explanation of the obtained results from different dimensions and thereby, the reader may have a better understanding of validity and generalization of the research results. Moreover, Maxwell (1996) stated that triangulation strategy reduces the risk of chance associations and of systematic biases due to a specific method and allows a better assessment of the generality of the explanations that you develop.

According to Yildirim and Simsek (2006), one of the fundamental principles of qualitative research is to accept that facts keep changing according to individuals and the context in which these individuals live, and also to accept, in the first place, that the repetition of a previous research with similar groups will not yield the same results (external reliability that is replication). They (2006) state that human behaviors are never static; and they are continuously changeable and complex in nature and they add "That's why an exact repetition of a research is impossible about social phenomena regardless of the type of the method pursued and followed. As seen, principles related to external reliability are in contradiction with the basic principles of qualitative research study. Therefore, external reliability has a different meaning for qualitative research study (p: 259)". In the present study, the researcher used the same questions in Ozen (2008). As the consequence of this, getting different answers are expected in the present study due to the reasons Yildirim and Simsek (2006) mentioned above.

In the meantime it was stated that the reliability of the interview questions was examined in two ways as; external reliability and internal reliability as Freebody (2003) pointed out. According to Freebody (2003), external reliability involves the extent to which independent researchers working in the same or similar context would obtain consistent results. Internal reliability, in the meantime, involves the extent to which researchers concerned with the same data and constructs would be consistent in matching them.It was pointed out that interview questions had both internal and external reliability (see Ozen, 2008).

Concerning the preparation and development of the interview questions, it was pointed out that the literature in relation to the subject area was reviewed and the criticisms, the suggestions and the recommendations of 8 subject specialists were taken into account. Furthermore, it was stated that before holding the interviews, the researcher performed the pilot study of the interview questions in order to obtain the final form of the interview questions as indicated in Ozen (2008). In the interviews with the MoNE staff, the following three questions were asked as in Ozen (2008).

- **What is your opinion about the planning of INSET programs via distance education?**
- **What is your opinion about the application of INSET programs via distance education?**
- **What is your opinion about the evaluation activities of INSET programs via distance education?**

Data Analysis and Interpretation

During the interviews the following stages were performed by the researcher. At first, the researcher took notes, converted these notes into interview texts.

Secondly, the texts were turned into matrixes by the researcher in order to ensure detailed, clear and comprehensible data processing and analysis process as Yıldırım and Simsek (2003) stated and Miles and Huberman (1994) proposed.

During the formation of matrices, even though the researcher took only the perceptions and ideas related to the scope of the present study into account, the unnecessary perceptions and ideas were disregarded by the researcher.

Thirdly, the number of perceptions and ideas repeated in matrix was found out and the perceptions and ideas repeated for 4 times or more were considered as the general tendency of the participants. On the other hand the unrepeated perceptions and ideas were regarded as a finding which was peculiar to each of the group members who participated in the interviews.

As at the beginning of the interviews, the interviewees were guaranteed that their names would not be revealed and deciphered during the research, the participants were named with codes of letters (such as A, B, C) instead of using their names by the researcher. For this reason, the participants' statements were presented with these codes in the findings part of the present study. The obtained findings were interpreted and the results were deduced on the basis of the theoretical background information.

Limitations of the Study

The results of the present study are limited to the opinions of the Ministry of National Education (MoNE) staff (n=15) who voluntarily participated in the interviews and who were working in the Inservice Training Department of MoNE in 2008.

FINDINGS OF THE STUDY AND DISCUSSION

The findings of the study obtained as the consequence of the interviews held with the Ministry of National Education staff about the planning, application and the evaluation activities of INSET programs via distance education and the discussion of these findings are presented below.

What Is Your Opinion About The Planning of INSET Programs via Distance Education?

The INSET training needs of participants should be identified, be assessed and the INSET program priorities should be determined in accordance with these participants' training needs (A, B, C, D, E, G, H, J, L, M and O).

When the literature is examined, it is seen that the literature (Kent, 2004; Treacy, Kleiman and Peterson, 2002) emphasizes and stresses the importance and essence of assessing INSET participants' training needs not only in traditional INSET programs but also INSET programs via distance education. The INSET participants should be informed in advance about the main features/ characteristics (e.g. information about the participants of the program, the necessary requirements for participating the program, technology facilities, course materials and other resources used during the program, time of the program and instructional activities of the program, others) of the program they would participate in advance (B, C, M, H, N).

The relationship between the INSET course content and participants' school curriculum should be established and be considered during the selection of the course content when and if necessary additional subjects and /or topics should be included in the course program (A, C, F, G, I, J, N).The staff development programs are expected to provide practical solutions to teachers' problems about their schools and professions. In this respect, the findings of Desmarais (1992) support this idea in that she (1992) found in her study that "Teachers agree that inservice programs should relate directly to problems encountered in the classroom, and that the program should include activities which allow for the different concerns and needs which exist among teachers (p: 13)".

In this regard, the content and the instructional activities of these programs should be related to not only school curriculum but also teachers' subject areas. Even though, Anderson (2003) points out that the course is useful to participants when it is designed by activities applicable to the subjects that the participants are currently teaching, Lieberman (1995) says that "Most of the inservice training or staff development that teachers are now exposed to is of a formal nature (pp: 591-596)".

Meanwhile Lieberman (1995) points out that these programs are not connected to teachers' classroom lives as they present various theoretical ideas that have both little contributions to teachers' continuous learning and impacts upon teachers' classroom practices.

There should be a support mechanism (e.g., professional, technology, psychological) that the participants would benefit from during the programs (F). Support is considered as one of the most important aspects of distance education programs. In line with this fact, the literature (Burns, 2002; Hasler-Waters and Napier, 2002; Restauri, 2004) points out and presents different forms and types of support (e.g., instructor, technical, student, administrative, and others) in distance education programs. Meanwhile, when professional development programs are concerned, the literature (Guskey, 1991) considers support as one of the most important elements and characteristics of effective professional development programs.

In this regard, the literature (Cole, Simkins, and Penuel, 2002;Polselli, 2002) reports positive results and changes in teachers' enthusiasm to participate the program again in the coming years, to learn more about technology and to develop their technology knowledge, technology knowledge, skills, abilities and their classroom and teaching practices, views about the school program, integrating technology into their classroom practices, their roles in their classrooms and in their students' academic achievement levels, learning and the quality of their projects having received support during the programs they participated in.

What Is Your Opinion About The Application of INSET Programs via Distance Education?

During INSET programs via distance education, the active involvement of participants and application should be emphasized. For this purpose, various opportunities should be provided to the participants in order to see, experience, observe the real-classroom applications of what they learn in INSET programs (C, D, F, G, H, L, O). Having reviewed the literature, Trotter (2006) states that there are some important points to be kept in mind in relation to instructional techniques to be used with adult learners effectively in adult development research.

As a result of this literature review, Trotter (2006) points out the importance of adults' learning experiences and interests, the learning environments in which adults learn at their own speed, reflection and inquiry in their learning. On the basis of this fact, during INSET programs the importance and significance of application should be considered and kept in mind by program organizers as an important part of these programs.Meanwhile, an emphasis should be given to the application of theoretical knowledge, skills gained, learned and acquired during these programs in that teachers, as adult learners, should see, observe and try out the practical applications of their INSET gains in new situations.

In this way, they could consider these gains in their daily classroom activities at their schools in order to meet their students' diverse needs. Furthermore; during INSET programs, various opportunities should be provided to participants in order to experience and to see the practical applications of what they have learned in new teaching situations and contexts.

In order for participants to see, experience, observe the real-classroom applications of what they learn in INSET programs, their active involvement to these programs is required. Active involvement of participants to staff development programs is considered as one of the characteristics of effective staff development programs. Through their active involvement to these programs, teachers as the participants of these programs see, observe how to use the knowledge they have in practice through various applications. In other words, they have a chance and opportunity to see and to observe the possible applications of the theoretical knowledge they learn in the program.

As the consequence of their active involvement, positive changes are expected in their knowledge, skills, behaviors ideas, views related to not only about their professions but also about themselves having shared their ideas, knowledge, views with their colleagues and with instructors during these programs, communicated and interacted with each other, tried out new things and experienced what they learn during the programs.In this respect, Wood and Thompson (1980) regard "lack of participant (teacher and administrator) involvement in the planning and implementation of their inservice (p:375)" as one of the most common defects of programs and recommend "Include opportunities for participants in inservice training to practice what are they to learn in simulated and real work settings a part of their training and encourage the learners to work in small groups and to learn from each other (p:377)" in their proposed guidelines for effective staff development having reviewed what educators say and what is known about adult learners. In relation to this, the finding of Desmarais (1992) supports the ideas mentioned above.

Accordingly, Desmarais (1992) found that "A significant number of teachers agree that teachers should be involved in the planning, selection, and method of evaluation of inservice programs rather than administrators or others outside of the school district (p: 10)". In this regard, what Anderson (2003) points out summarizes the importance of active involvement for the success and effectiveness of an online professional development course.

According to Anderson (2003), in online professional development programs, the participants' active and intense participation and interaction with the resources in the learning environments should be provided in order to grow professionally and the nature and the number of learning experiences that participants undergo determine their professional growth levels.

The programs should be performed in interactive learning environments where various audio-visual instructional technologies and facilities are provided and sufficient. There should be no problems about technological infrastructure and technological infrastructure should be appropriate for these programs (H, N, M). Teles, Ashton, Roberts and Tzoneva (2001) state that there a variety of characteristics and features associated with collaborative online learning environments.

Mioduser, Nachmias, Lahav and Oren (2000), in the meantime, point out the different aspects of web-based learning environments as: "The identities of their originators , their goals, their target populations, the developers' pedagogical conceptions and beliefs, which are either explicitly stated or implicitly embedded in the site's design, the configuration of technological features (p: 56)".

When the literature is examined, it is seen that the literature presents not only the importance and significance but also various important characteristics of online learning environments for INSET programs via distance education. According to the literature (Cercone, 2008; Herring, 2004; Norton and Hathaway, 2008; Street, 2007), the online learning environments of INSET programs via distance education should have some features, as:

The characteristics of adult learners and adult learning, flexible environments where different teaching approaches are effectively used and implemented, the effective

use and implementation of technology as part of teaching-learning process, the interaction between teachers and students as they motivate each other and act as partners in teaching-learning process to create a collaborative learning environment, easily accessible information and learning materials accessible and available computer, internet and other technologies, a support network for effective teaching practices, a variety of educational tools and materials related to course content and course activities organized during the program, scaffold time management, pacing of work, timely completion of tasks, the use of appropriate learning strategies, learner's sense of ability to succeed, facilitate self-regulating activities for learners, teachers' roles, the training needs of students, embedding of assessment within the learning process, creation and facilitation of problem-based learning and multiple approaches to knowledge development, flexible learning environment where they are responsible for their own learning and where they look for information.

According to Berge (2002), the learning environment should be designed in a way that learning is contextual, learning and learner centered and there should be planned pre-learning activities to take the full advantage of active, interactive and reflective learning in which learners are aware of why and what they learn, make the meaning through their interactions with the content, peers and their instructors then reflect their gains and deal with the material in their own pace, time.

Considering these facts, it could be said that the learning environments of online professional development programs should meet the characteristics of online learning environments mentioned above. The instructors of these programs should be assigned to these programs among the subject-specialists and they should have some competencies, they should be able to fulfill the roles that online learning environments require (E). According to Poon, Low and Yong (2004), in online learning and online learning environments the instructor's role plays as a factor that has impacts upon the effectiveness of online learning.

In this regard, as Fontaine (2000) says, "Introducing ICTs to the learning environment brings an entirely different set of capabilities to teachers and learners (p: 15)". On this basis it could be said that online teachers should fulfill various roles in online learning environments.

The literature (Poon, Low and Yong, 2004; Restauri, 2004; Seok, 2008) points out that in online environments online teachers should demonstrate certain roles, as: Instructional designer, discourse facilitator, subject matter and content expert, technology resource person, technology specialist and technician, motivator and an administrative advisor. When INSET programs via distance education are concerned, instructors of these programs are expected to have certain competencies as observed in the literature (Darabi, Sikorski, and Harvey,2006 ; Furst-Bowe,1996; Spector and de la Teja,2001).

In their study, Darabi, Sikorski, and Harvey (2006) identify the competency areas that could be used in the selection and training of distance education instructors as follows:

To have effective communication skills and behaviors in learning environments, to encourage, motivate and stimulate learners to learn and to guide learners during learning, to use relevant technology effectively and solve technology related problems, to create and to provide an appropriate learning environment and learning experiences through which participants interact and involve in learning process actively, to evaluate course effectiveness, to monitor and assess learner progress and provide feedback, to use appropriate instructional methods and technologies effectively, to develop themselves professionally. According to Spector and de la Teja (2001), the instructors of INSET programs via distance education should have the following competencies, as: To create and implement highly engaging and effective online environments, to implement and utilize information technology facilities effectively in online environments online environments.

Meanwhile, the participants in Furst-Bowe (1996) study report the ability to use technology, to assist trainees in the use of technology, the ability to evaluate the effectiveness of a specific technology, the ability to develop programs or systems as some of the competencies that instructors of INSET programs via distance education should have. During the application, of these programs, there should be various opportunities for interaction between and among the participants (H, M). In online learning environments interaction is considered as an important element and an integral part of online learning programs as they affect students' attitudes and performance (Hirumi, 2002).

In this regard, Battalio (2007) uses the term interaction as a general term for a variety of interactivities and examines different types of interactions in online learning environments,as:

Student-instructor, peer-to-peer, peer-to-peer-to-instructor, collaborative group and interaction with technology. When online professional development programs are concerned, as Chen, Tseng and Lin (2005) state, interaction is an important attribute for teachers' professional development online learning in that "online professional development provides a way for teachers to interact with colleagues and professionals across time and place and to become part of a global community of lifelong learners (Treacy, Kleiman and Peterson, 2002:46)".

McCcrory, Putnam and Jansen (2008) consider subject matter, tasks, representation of the content and organization and communication structure as key issues of interaction in online courses for teacher education.

What Is Your Opinion About The Evaluation Activities of INSET Programs via Distance Education?

The teachers' performance (their participation to activities, assignments, and others…) during these programs should be taken into account as a base for the evaluation (A, L, O). The evaluation should be made by the end of these programs, end of each unit or topic areas studied in order to see to what extent the program objectives are achieved or not. In this way, the effectiveness of these programs is examined through the feedback received from the teachers as participants (B, C, H). On the other hand, there should be a multiple choice type centralized examination (C, E, G, H, I, O).

The literature on distance education and online education programs considers evaluation as an important and integral part of distance education programs in which various assessment techniques and tools are implemented and utilized (Gaytan and McEwen, 2007; Lockee, Moore and Burton, 2002; Milam, Voorheesand Bedard-Voorhees, 2004; Sims, Dobbs and Hand,2002).

In addition to formative and summative evaluation procedures, the literature points out the implementation of other evaluation and/or assessment tools and techniques as, peer and self-evaluation and assessment, examinations as timed tests and quizzes, various projects, discussions in electronic board, electronic portfolios, software simulations, assignments on a weekly basis with immediate feedback, case studies in online learning environments. When the possible implications of the assessment techniques and tools implemented in distance education programs upon INSET programs via distance education are dealt with, it could be said that during these programs, formative and summative evaluation procedures should be used together with other evaluation and /or assessment tools and techniques utilized in distance and online education programs. Additionally, observations, questionnaires, interviews should be used in INSET programs via distance education.

CONCLUSION AND RECOMMENDATIONS

The interview results indicated the importance and significance of identification and assessment of INSET participants' training needs, information provided to the participants before these programs start , the correlation between the content of these programs and their school curriculum and the support mechanism during the planning of INSET programs via distance education, application dimension of their learning during these programs, actively involved in the process, interaction in online learning environments, characteristics of learning environments where various audio-visual instructional technologies and facilities are provided and sufficient and the participants access and use ICT equipments easily, the competencies and qualifications of INSET program instructors since they fulfill different roles characterized and defined by the nature of distance and online learning, of evaluation for INSET programs via distance education in order to see to what extend the program objectives are achieved or not. Considering these, the following can be recommended:

The training needs of INSET participants need to be identified and assessed before these programs start, the importance of participant support needs to be kept in mind by program organizers during the planning of these programs, the participants need to

be supported during the application of these programs when they are in need of them, the correlation between the content of these programs and the primary school curriculum needs to be established during the planning and the application of these programs, the application dimension needs to be emphasized by the program organizers, participants need to be provided various opportunities to experience and to observe the practical applications of what they learn in the program, the instructional activities need to provide the examples of the classroom applications of the topics studied during these programs, the topics studied during these programs need to be related to their school curriculum, participants need to have opportunities to be actively participated in the application of these programs through various instructional activities, the learning environments of these programs need to be rich in terms of information and communication technologies, the technological facilities needs to be appropriate for the application of these programs, the instructor of these programs needs to be selected and assigned to these programs among the ones who have the necessary competencies and skills and who can fulfill the roles required for these programs, subject-specialists and academicians need to be selected and assigned to these programs as the instructors of these programs, formative and summative evaluation instruments need to be prepared and developed to examine whether program objectives are achieved or not , in addition to formative and summative evaluation procedures , other evaluation and/or assessment tools, techniques used in distance and online education programs and observations, interviews, questionnaires need to be implemented and used.

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STUDY ON ROLE OF RADIO FOR RURAL EDUCATION IN PAKISTAN

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ABSTRACT

Radio is a mean not only for information and entertainment but also for education. Radio is being used for educational purposes all over the world. In Pakistan it is also a medium of communication. Pakistan broadcasting corporation has started broadcasting educational programs of Allama Iqbal Open University. There is no denying the fact that educational broadcasting in Pakistan is being run successfully.

The rural population of the country is getting benefit from the educational programmes of the radio.The main aim of the study was to examine the effectiveness of educational radio and its various strategies being applied for rural education. The study was delimited the radio listeners, radio producers/comperes and social workers/opinion leaders. The masters list of listeners was obtained from Radio Station, Hyderabad. The second sample was radio producers/comperes whereas the third sample was social workers/opinion leaders. The tool used in this study was questionnaires.

It was found that the majority of the listeners possessed radio sets and was getting benefit from the educational programmes of radio. The programmes were informative and motivating. The strategies of radio for rural education were appreciable because these infused mobility, widened horizon of rural people and focused attention on the goals and problems of rural people.

It could be used to enhance literacy (through distance and non-formal education).the producers/comperes were found keenly interested in their job. It was revealed that priority was given to education and rural development programmes of radio. Programmes needed detail and summary at the end. Furthermore language was not easy. Mobile radio station was needed for rural educational programme to cater to the needs of far flung areas. School broadcast (distance and non-formal teaching) was the need of the day. Social workers/opinion leaders opined that there was need of developing self reliance. Radio provides guidance to rural people in solving the problems of rural development. They felt the need of starting school broadcasting .radio was being utilized for apprising villagers with their problem. There was need of maintaining more educational programmes.

Rural programmes were to be in mother tongue.It was recommended that for educational purposes Radio Pakistan and AIOU may produce programmes which have their strong links/roots in the surroundings of the rural people.

Radio schools like Interactive Radio instruction (IRI) may be used for effective teaching learning process in rural areas. Time of educational programmes should be enhanced. Programmes like radio rural forum may be started as well as open broadcasting should be adopted for rural development programme.

Keywords: Radio, Rural Education, Distance Non Formal and Continuing Education

LITERATURE

The role of information media with specific reference to rural development can only be defined from the scope of rural development activities. The primary purposes of information transfer in the context of rural development are to bring about a change in the quality of the life of rural people.

The utility of radio as a media of information transfer for assisting development in particular rural development has been established world wide. Radio can be used to assist the activities of development workers.There are several ways in which the technology of communication media can be used to further the education. In a number of countries, educational radio and television programmes are being used to supplement formal classroom education.

Education programmes regulate broadcasting for those who have a certain amount of education or are, at least, literate. Such programmes broadcast of regular and convenient times enable those who are not in a position to continue education to supplement their knowledge.

Radio may be used to provide basic education to disadvantaged adults in a community. Mohanty, J. (186, p.1) mentions that "educational broadcasting is required to be a potential instrument of educational advancement and an integral component of educational inputs in traditional as well as distance education or other alternative learning systems for different categories of learners". Radio communication is one of the fastest, powerful, inexpensive and in many countries the only way of communication with rural people. It reaches people of all cultural, social, educational and economic levels very quickly.

Hasan and Khurshid (1994, p. 225) has depicted Pakistani scene saying that, "The bulk of population of the country lives in rural areas where facilities in the field of education are very scanty and limited. Unlike the printed words and other media of communication, radio enjoys the unique advantages of reaching the far flung areas and message can be easily understood by every one as it requires no prior standard of education and knowledge".

Radio has enabled millions of villages to receive information of all kinds. Radio and television are extensively used in distance and non formal education, in both advanced and developing countries. The advent of modern technologies could not alter the role of radio especially for rural areas. Its importance is as it was forty years ago. In late seventies Schramm, W. highlighted the scope of radio, " If mass media or equally potent and rapid means of information were not available, it would be utterly impossible to think of national, economic and social uplift attached to such development today".

There are several strategies from which any suitable strategy is to be chosen for desirable change. Before choosing any strategy there is a need of knowledge about the interests, needs and desires of the target population. Radio programmes are required to carry out the strategy having order and purpose.

Rural development activities are usually organized by government through their information services, ministries and other statutory bodies.. They normally take the form of literacy programme, agricultural extension project, health services. Radio uses different strategies for broadcasting. Rajasundaram (1981,p.49) has given following strategies:

Table: 1
Strategies for radio broadcasting

Strategy	For whom
Open broadcasting	the unorganized and general audience
Instructional radio	the organized listening group, specific audience, supported by other media channels. Related to a formal curriculum.
Radio rural forums	the listening group, organized and specific audience. Objective of broadcast is to stimulate group discussion.
Radio schools	the non-formal learning group. Related to formal curriculum.
Radio and animation	the participating group; open broadcasting but production is more or less in the hands of non broadcasters(a section of the audience). Use of the medium as feedback channel is important component.

The system of education suffers from many problems. These include illiteracy; drop out, short of female teachers in rural areas. Pakistan Broadcasting Corporation covers 98% geographical area of the country. Majeed (1985) mentions that "radio has the unique distinction of being the first major electronic technology to be introduced to the largely illiterate rural population in early sixties. Radio was seen as a source of information through mass bulletins and radio talks especially geared towards the rural masses". To effect change in the attitudes, beliefs and traditional ways of the thinking of the villagers and to remove illiteracy, superstitions and misconceptions in rural areas about things radio programmes played an important role.Radio is very commonly used both in urban as well as rural areas. Hence the programmes of PBC cover most of the aspects of rural development. On the other hand Allama Iqbal Open University (AIOU) which is one of the mega universities in the world telecast its programmes on radio. It has very good track record in this regards. Siddiqui (1987) pointed out that radio is fulfilling needs of the students of rural areas.

OBJECTIVE OF THE STUDY

The objectives of the study were to:

- **Investigate the role of radio in rural education**
- **Asses strategies of educational broadcasting**

- Evaluate the role of media in education
- Identify problems involved in the use of radio for rural education
- Suggest possible solutions for the identified problems

METHODOLOGY OF THE STUDY

The major focus of the study centered on the effectiveness of radio broadcasting. Various aspects of rural education were analyzed and major indicators were identified in order to investigate the effectiveness of rural broadcasting in Pakistan. This study used a survey approach to look at coherent aspects of effectiveness broadcasting in rural education, objectives, practices and approaches for radio programmes, radio broadcasting in Pakistan. Keeping in view the nature of the problem, descriptive i.e. survey type of the study was considered appropriate.

According to Best (1992, p.76) "A descriptive study describes and interprets what is. It is concerned with conditions or relations that exist opinions that are held, processes that are going o, effects that are evident and trends that are developing". Three questionnaires were utilized as research instrument.

Instruments and their development

The survey method gathers data from a relatively large number of cases of a particular time. Hence, in order to collect the data from the field. Questionnaires were used which generally consisted of a number f statements for the measurement of the variable of the subject under consideration. For the study, three questionnaires were developed and used.

- Questionnaire for radio listeners
- Questionnaire for radio producers/compare
- Questionnaire for social workers/opinion leaders

Likert method of summated rating was used because the respondent course easily expresses definite formalness or favorableness to a particular point of view and that the number of favorable statements is approximately equal. Each closed ended statements provided description of five levels, namely:-Strongly agree SA), Agree (A), Uncertain (UNC) ,Disagree (DA), Strongly disagree (SDA). Regarding likert scale, Sindhu (1987, p.186) defines that: The likert scale uses items worded for or against the proposition, with five point rating response indicating the strength of the respondent's approval or disapproval of the statement. This method removes the necessity of submitting items to the judges for working out scale values each item.

Questionnaire for Radio Listeners

This questionnaire was concerned with gathering factual information about the radio listeners with respect to:

1. **Profile to listener**
2. **View on the programmes of radio**
3. **Timing of the radio programmes**
4. **Purpose of radio**
5. **Benefits of radio**
6. **Problems regarding radio programmes and suggestion on radio programme**
7. **Rural broadcasting**

Questionnaire for Radio Producers Compere

This instrument was concerned with gathering information about the radio and producers/compares themselves and their professions with respect to:

1. **Profile of producer/compare**
2. **Role of radio**
3. **Purposes of radio**
4. **Categories of radio progress and their timings**
5. **Rural broadcasting**
6. **Problems involved in radio progress and the suggestion**

Questionnaire for Opinion Leaders/ Social Workers

This instrument was concerned with gathering information and opinion of leaders about the products of various programmes of radio in Pakistan on the basis of their actual performance in rural development. The instrument was divided into sections encompassing:

1. **Profile of opinion leaders/ social workers**
2. **Purpose of radio**
3. **Radios utilization in rural development**
4. **View on existing programmes of radio**
5. **Problems involved in rural broadcasting and their solutions**

The research was carried out as under:

Population

The population of the study consisted of (i) 1200 radio listeners, (ii) 80 radio producers/compares and (iii) 330 social workers/ opinion leaders.

Sample Group	Sample size
Radio listeners	800
Radio producers/compares	50
Social workers/opinion leaders (these were affluent Persons earning social, political, educational and Economical status in the community)	300

The study intended to focus on the role of radio in rural education. Hence, the population was scattered in rural settings, male and female cohorts covering wide strata radio listeners, radio producers/comperes and opinion leaders/social workers. Manageable sample was therefore selected through necessary stratification and randomization to make it truly representative.

Table: 2 Details of sample

S.No.	Category	Total populatic	Target	Total covered	% age
1.	Radio listeners	1200	980	800	66
2.	Radio producers/comperes	80	65	50	62.5
3.	Opinion leaders/social workers	330	330	300	75

PROCEDURE FOR SELECTIN OF SAMPLES

Sample of radio listeners

The sample of radio listener was comprised of those listeners of radio who write letters to radio. A master list comprising of twelve hundred radio listeners was prepared. Among from that list random sampling was applied. Eight hundred listeners were sample of the study.

Sample of radio producers/comperes

The sample of radio producers/comperes was comprised of radio producers/compeers working at radio station Hyderabad. The total population was 80 and the sample size was 50.

Sample of social workers/opinion leaders

The sample of social worker/opinion leaders in Hyderabad Division was selected to seek their opinion. The total population was 330 and the sample size was 300.
Before launching the study the instruments were tried out and tested through pilot study. Profile of the radio listeners was obtained from radio station, radio magazine and radio listeners club.

DATA COLLECTION

Data collection procedure was handled with care and paid attention to every set of the study within appropriate limits. The try-out was undertaken. Target groups were briefed about the objectives of the study and their role mainly focusing on the validity of indicators. They were further asked to indicate any ambiguity in the statements or indicators, any repetition which required deletion or resetting, unnecessary questions, aspect which had been ignored in the instrument and suggestions for further improvements. After improvement of the instrument the questionnaire was administered among the sample.

DATA ANALYSIS

The responses received from the above mentioned sample were analyzed for improvement of the designed instruments. Following were the major aspects of attention which were highlighted for the responses in all the instruments.

- **Questionnaire for radio listeners and opinion leaders/social worker in Urdu.**
- **Identification of ambiguous/unclear words/sentences by encircling them on the instruments.**
- **Indicating questions which were unnecessarily repeated in the questionnaires.**
- **Pointing out questions which could be easily merged with other, without the loss of intended focus of the instrument.**
- **Suggesting new questions which could be included in the instrument within the framework and score of the study.**
- **Identifying irrelevant questions which could be eliminated from the instrument.**
- **Proposing general guidelines and suggestions for improvement of the questionnaires.**

The responses and feedback on various instruments were analyzed. The majority the questions and identified responses were found appropriate to the instruments and study. However, some suggestions were made to restate some items for clarity, merger of me duplicate or related items.

Only a few suggested the need for additions of some re aspect. It was felt essential to translate questionnaires for radio listeners and opinion leaders/social workers in Urdu.The filled up questionnaires as received were serially numbered, items were coded.

Since the questionnaires were consisted of rating scale, the following scale value was assigned to each of the five responses.

Level of Agreement	Scale Value
Strongly Agree	5
Agree	4
Uncertain	3
Disagree	2
Strongly Disagree	1

From the score of rating scale, percentage and mean score was determined. For mean score following formula was used.

$$\text{Mean Score} = \frac{\sum F \times 5 + F \times 4 + F \times 3 + F \times 2 + F \times l}{SA \quad A \quad UNC \quad DA \quad SDA}$$
$$N$$

DATA PRESENTATION

Table: 3
Responses of Radio listeners

Sr No.	Statement	SA	A	UNC	DA	SDA	Mean
1	Radio programmes are relevant to your needs	148	357	14	80	74	3.53
2	Broadcasting is a mean of guidance to learn social sciences.	163	328	148	88	73	3.53
3	Educational programmes of radio increase knowledge.	398	202	91	69	34	4.11
4	Radio programmes are in accordance with rural development.	273	240	156	35	96	4.11
5	Radio can establish a climate for change particularly for rural people.	391	221	58	62	68	3.70

Table: 4
Responses of Producers

Sr No.	Statement	SA	A	UNC	DA	SDA	Mean
1.	The radio programmes motivate common people for practical work.	12	29	3	3	3	3.88
2.	The radio programmes help listeners to understand everyday problems.	29	7	4	6	4	4.0
3.	Radio provides guidance, discussion on curriculum of schools and subject matter for the rural community.	16	18	11	3	2	3.86
4.	The strategies applied by radio for rural education are appropriate.	9	20	8	5	3.4	3.88
5.	Radio establish a climate for change particularly for the rural people.	29	9	2	7	3	4.08
6.	Radio raises the general level of aspiration.	22	13	4	6	5	3.82

Table: 5
Responses of Opinion leaders/social workers

Sr No.	Statement	SA	A	UNC	DA	SDA	Mean
1.	Radio has importance in rural development.	197	73	11	8	11	4.46
2.	Radio provides guidance to the rural people in solving the problems of rural development.	64	174	14	31	17	3.79
3.	Radio broadcasting is relevant with rural development.	48	172	42	14	24	4.10
4.	Radio provides guidance, discussion on curriculum of schools and subject matter for rural community.	127	77	26	28	42	3.73
5.	The strategies for rural education applied by radio are radio.	38	136	65	43	18	3.44

DISCUSSION

The role of media in a nation's development process has been widely accepted. Broadcast media, especially radio, has been found to be a very effective in the development process in Pakistan. Research has found a very high correlation between the development of media and the economic and social development of rural areas in the developing world. Broadcast media have been able to help in the development process by establishing a climate for change. The media can do this by infusing mobility, widening horizons, focusing attention on the problems of development, and communities has been broadly recognized. The role of media in enhancing rural education has been widely accepted. The media can enrich the interpersonal channel of communication and help in the enforcement of social norms. It can also be used for involving people in national policies and goals for development. The broadcast media were also found helpful in the development process by their power to affect and change attitudes, thus helping in the adoption of new methods and techniques for development.

The important use of broadcast media is their contribution to the educational system; in both formal and non-formal education. In formal education, media can provide instructions, can supplement the classroom lessons, and can be used for upgrading the knowledge of teachers. They are also being used for vocational and higher education. In a non-formal context, the media can provide fresh information and knowledge to the rural communities where, in most cases, no other sources of information is available. They can help in literacy campaign by motivating the general public, by encouraging the individual learner, and by providing the actual literacy instructions – the most important in community development efforts.

FINDINGS AND CONCLUSION

1- **72% listeners were enthusiastic in listening to radio. For mostly students the appropriate time was of evening and night whereas 63% found that the programmes were relevant with their needs. 64% listeners very well knew the objectives of the programmes**
2- **There were 75% such listeners who were of the view that the subject matter in their favorite programmes was sufficient. 78% pointed out that these programmes helped them in their daily life. There is understanding about everyday problems whereas at least the same majority admitted that most of the educational subjects presented real life situation.**
3- **89% listeners admitted that the programmes which were recorded in villages include participation of students, teachers and other related persons to education.**
4- **61% listeners said that broadcasting is a mean for guidance to learn social science. 64% viewed that the programmes were in accordance with rural development.**
5- **There were 71% such listeners who were of the view that radio can establish a climate for change for rural people. 76% of radio listeners agreed that radio infuses mobility and widens horizon of rural people and focuses attention of goals and problems of rural development.82% listeners admitted that radio can provide awareness in general public.**

6- 71% radio listeners were of the view that radio is a suitable mean for educating people. The same percentage said that literacy can be enhanced through distance and non- formal education with the help of radio.

7- 64% producers said that radio provides guidance, discussion on school curriculum related for rural population. 86% producers pointed out that radio infuses mobility and widens the horizons of rural peoples. 70% producers said that radio raises the general level of aspiration.

8- 88% producers pointed out that radio is being used to teach a variety of aspects of the development process beside enhancing and enforcing social norms. 72% producers said that radio station prioritized education in the programmes of rural development.

9- 73% Opinion leaders said that the strategies for rural education applied by radio were suitable admitted that radio programmes were relevant to rural development.

10- 76% viewed that radio makes the rural people realize the educational needs, problems and responsibilities.

11- 84% opinion leaders pointed out that radio provides advices to rural peoples to improve their projects of rural development. 69% opinion leaders/ social workers agreed that radio accelerates the pace of rural education in villages.

12- 79% opinion leaders said that radio motivates the rural educated peoples to train their common people and create interest for education.

RECOMMENDATIONS

1- Such programmes may be produced which have their strong links/roots in the surroundings of rural people beside their books. In other words, most of the educational subjects be presented in rural life situation.

2- Radio programmes be improved in terms of content and methods and should be relevant to the emerging needs of rural peoples.

3- Programmes like radio rural forums be started.

4- Radio schools like Interactive Radio Instruction (IRI) may be launched for effective teaching learning process in rural areas.

5- Open broadcasting be adopted for rural development programmes.

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LEARNERS' PERCEPTION OF BLENDED WRITING CLASS: Blog and Face-to-face

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ABSTRACT

The purpose of this research was to investigate student perception of blended writing classes. It was conducted with intermediate level EFL learners in the preparatory school at Anadolu University. Data consisted of student reflections. The first reflection aimed at finding out learners' perception of fall term writing lessons, and, the instant and final reflections aimed at finding out learner perception of blended writing lessons. Although learners' perception of writing lessons was negative in the first reflections, they changed into positive in the latter ones. The findings indicated that blended writing class had changed students' perception of writing lessons positively. Therefore, this kind of classes may help students develop a positive attitude towards writing by providing meaningful writing opportunities.

Keywords: Blended writing class, meaningful writing, blog, blogging, authentic writing

INTRODUCTION

Writing is perceived and taught by the language teachers as a means of communication. However, the language classrooms in general fail to provide opportunities for using writing to communicate meaning to genuine audience for a specific purpose mainly because students know that their texts will be read either by their teachers or peers even if the instruction includes a specific audience and purpose. Therefore, writing activities which may have a context and seem to be engaging may be perceived as demotivating by the students. This opinion was confirmed by the learners' responses to the open-ended question given to them prior to this study. In their responses students evaluated the writing course negatively and described writing lessons as "meaningless", "routine", "classroom-bounded", "teacher-oriented", "mechanic", "isolated" and "neither functional nor useful".

These negative views about the writing course posed a problem to the class teacher. Students are generally unmotivated, fail to see the relevance of the course and hate writing. Review of the related literature indicated that designing tasks in which students would be interacting with their genuine audience for a real purpose on the Internet would be a solution by making English as a Foreign Language (EFL) classrooms more authentic, interactive, meaningful, real, and functional. This possibility suggests blending classroom with technology.

The computer technology and the Internet can easily be integrated into language classroom if activities are designed carefully, and carried out systematically.

There have been early examples of integrating computer, computer technology, and the Internet to the classroom (Salaberry, 2001; Zhao, 2003). These attempts brought about a new understanding to teaching and learning: blended learning (BL). In its most plain term, blended teaching is a systematic shuffle of elements and teaching approaches to be followed in one class. In other words, students are exposed to different learning environments (Scagnoli, 2005). In BL and teaching, the principles of classroom teaching are followed, and the general classroom practices are kept as they are; however, new elements are integrated into the course. These elements function differently depending on the goals and objectives of the program. Blending new elements into the existing course can operate at different dimensions; however, one important consideration to make is to what extent the new elements are perceived useful by its primary users, students.

This study aims to find out students' perception of blended writing classes and in this paper firstly the related literature will be presented and then research design is introduced In the analysis section, the findings and the discussion of the findings are presented. The paper concludes by elaborating some implications for the further planning of blended EFL writing classroom.

LITERATURE REVIEW

Use of technology in the language classroom is at the same age with technology itself as each new technology is perceived to be revolutionary not only from technological point of view, but also "from a pedagogical standpoint as well" (Salaberry, 2001, p. 39). As a result of this, technology in the language classroom has been focus of various research studies and two comprehensive reviews of these studies were done by Salaberry (2001) and Zhao (2003).

In his article, Salaberry (2001) paints a comprehensive historical picture of research on technology in language teaching, and as a result of his review, he poses important questions to assess the pedagogical effectiveness of different technologies and argues that "the most important challenge posed by technology assisted language learning will be the identification of the pedagogical objective that technology based teaching is intended to fulfill…the concept of the pedagogical objective of technology-based instruction must be identified as a separate theoretical construct from the features that define technological resources" (p. 50). In his review, Zhao (2003) tries to answer "to what degree technology is effective in improving language learning" (p.), and claims that it is not an easy question to answer as:

- **technology is a broad term and used to refer to many different tools ranging from tape-recorder to online chatrooms,**
- **the effect of technology is directly related with the implementation of technology in the language classroom,**
- **there are other variables such as student, teacher, and evaluation procedure that affects the effectiveness of technology, and concludes that "technology, when used properly, can have a positive effect on language learning" (p. 22). He states that technology should be incorporated into the curriculum and should provide solutions to pedagogical problems. Depending on the needs of the students and pedagogical problems, appropriate technology should be implemented, and to make this informed decision extensive research is needed.**

Advances in technology have changed the way technology is used in the classroom. For example, "the distributed learning environments are increasingly encroaching on instructional territory that was once possible only in face-to-face environments" (Bonk and Graham, 2006:6).

Although traditionally f2f instruction and distributed learning environments were largely separate as "they have used different media and method combinations and have addressed the needs of different audiences", this has been changing with the progressive convergence of traditional face-to-face and distributed learning environments allowing development of blended learning systems (ibid.). "Blended learning…offers the possibility of recapturing the traditional values of higher education while meeting the demands and needs of the twenty-first century" (Garrison and Vaughan, 2008:5). Scagnoli (2005) states the profits of blended Classroom + Online learning as,

- **helping students learn how to build up new knowledge, combining the use of new and traditional tools to explore, select, and evaluate sources;**
- **learning to present, share and collaborate with others in real and virtual spaces**

Besides, purpose of education might be another reason for BL. According to Garrison and Vaughan, (2008) "higher education must start delivering on its promise of providing learning experiences that engage and address the needs of society in the twenty-first century" (p. 7). Considering the role of ICT in today's world, blending f2f instruction with the Internet would be one way to prepare students to the real world in which all types of web technologies have been used intensively for different purposes (Scagnoli, 2005). Change in the learner profile is another reason for BL. Most of the students coming to our classes are digital native as technology comes to their life at early ages and they are content with their computer literacy skills (Dudeney and Hockley, 2007).

There are different views on the reasons of increased interest in BL. For example, according to Stracke (2007) the need for BL was aroused by unsuccessful implementations of e-learning. According to her, it is almost impossible to exclude human from any teaching-learning process. Another reason is "the increasing awareness that blended learning approaches and designs significantly enhances the learning experience" (Garrison and Vaughan, 2008:3). Referring to the hot discussion on what BL is and availability of resources on BL, Stracke (2007) claims that "BL has taken root and is practically applied as well as theoretically conceptualized" (p. 59); however, there is need for research on BLL in the area of language learning.

One of the tools provided by the Internet is blogs, which is the short form of web log. It is an example of social software as it "allows people to connect, to communicate and to collaborate online" (Dudeney and Hockly, 2007,p.86). Although blogs are mostly used by individuals to post messages to a web page, they are also used in the language classroom. It is claimed that "the use of ICT tools such as blogs,… can be very motivating for the learners" (ibid). In this application students publish their own writing and receive comments from outsiders, potentially leading to discussion and further use of the target language.

Students' approach to their written products also changes because "these tools engender a sense of social responsibility, with learners working collaboratively on content. Also, the public nature of content created using these Internet tools ensures that accuracy and appropriacy become more important to learners" (ibid).

THE AIM OF THE STUDY

Based on the review of literature, Blog was found to be the best solution to the pedagogical problem the teacher had in the EFL writing class as Blog would provide a real audience to the learners and encourage taking their task more seriously. Upon implementation of this, the question is to what extent students perceive this effective. Hence, the aim of this study was to find out intermediate level EFL students' perception of blended writing classes that connect outside world to the language classroom through the Internet. For this purpose the following research question was posed:

How is the blended writing course perceived by intermediate EFL learners?

SIGNIFICANCE OF THE STUDY

Tasks used on the Internet would function as a bridge between EFL classroom and an authentic virtual ESL environment needed for reader-writer interaction. Students who have a chance to exhibit their work in this virtual ESL context will probably be more engaged in writing tasks and have a positive attitude towards writing since it is from the life itself. The students as writers will hopefully begin to understand the real role of writing and their responsibilities as writers through the tasks used. Besides, using alternative task design to support the tasks reported as the source of students' unwillingness to involve in the lesson, may turn students' negative perceptions towards writing and the writing course into positive ones. In turn, the teacher's role in writing classroom will change from authority and evaluator to a moderator and editor of the web-based tasks as long as the teacher feels the need for establishing a real life connection with the students' writing.

METHODOLOGY

Data Collection

This research was conducted with 55 intermediate level students at Prep School, Anadolu University in the 2007-2008 Academic Year spring term and lasted 13 weeks. These students followed a skills based program and one of the courses was "Writing" with 6 contact hours per week. Nine computer lab sessions, including a training session, were integrated in the syllabus.

First of all, the teacher registered for the blogging system and developed the web platform (see Description of the Blog below) to be used as a part of the writing lesson. Then, in the computer lab a two-hour training session was held. Here students were introduced to the Blog and taught how to access, read and post required comments to the blog outside the classroom. After that, they registered to the page. After familiarizing students with the new practice, the first tasks were posted. For each genre covered in the lesson similar procedure was followed. First the salient features of the target genre were discovered by the students through analysis of model texts and then they practiced producing the target genre with controlled f2f activities.

This was followed with a computer lab session. Each session began with a warm-up in which either the students were allowed to work on the computer alone or the teacher introduced what they can do using search engines. This was an opportunity to help them develop their computer literacy. Then, students started doing the tasks on the blog in the computer lab and upon completion of the tasks, they reflected on them. At the end of each session, if time permitted, some problems such as recovery of students' forgotten passwords were solved. In these sessions the teacher was a guide on the side and provided assistance. In total, eight sessions, except for the training session, were conducted, and in total 19 tasks were done. The number of tasks for each genre changed according to the requirements of the unit. Students were instructed to do the tasks in their own time.

Throughout the practice students wrote 9 instant reflections, that is to say, upon completion of each unit students were asked to explain their perception of the unit in general and each task specifically. The purpose of collecting instant reflections was to incorporate student feedback where appropriate and meet the students' needs and preferences more. By providing feedback, the students were involved in the construction of the Blog and this was expected to increase their motivation. At the end of the term they wrote a final reflection in the cover letter to evaluate the blended writing lesson. They were allowed to write in Turkish because the primary purpose was to elicit their opinion.

Description of the Blog

Considering learner feedback on the writing course of the fall term, blending the f2f writing instruction with blog seemed to be a possible solution. Therefore, a tutor blog was set up and maintained by the teacher. As a type of edublog, a tutor blog may be used "to provide … learners with news and comments on issues, extra reading practice or homework, online links, a summary of a class for learners who were unable to attend, study tips and so on" (Dudeney and Hockly, 2007,p. 87). Thus, the blog was never considered as a replacement for the course book and it was not like a course book and was planned to function as a medium on which students were able to interact with the real world, other classes, their peers, and their teacher. This was also reflected in the title and the subtitle of the blog:

The Blog contributed to the f2f instruction in several ways. First of all, the activities used in the Blog were more like real world tasks which "require learners to approximate, in class, the sorts of behavior required of them in the world beyond the classroom" (Nunan (1979) cited in Mishan 2004, p. 70-71)). Besides this, students could reflect on the process continuously. These reflections informed the teacher about the students' experience and perception of the online materials, and revise the course to meet the changing needs of the students. Through these reflections, teacher could find new elements of student interest to reframe the course and sustain learner motivation which is one of the important issues in language classes. Also students could access their work to see the progress they had made as all student generated texts were published on the website. Furthermore, it could increase the motivation of the learners by reducing the paper work. Due to the nature of the online component—digitally stored, and more accessible and lively to recall in times of need—the students could look back on their productions not only within the semester, but also after that.
It also affects the e actual writing process itself is also different. Researching is a vital element for writing in which students need to analyze and synthesize the information.

The online component motivates students to interact with the cyber data, which they can access by clicking around the net. Since students are online, the Internet becomes less and less scary for them, and become a source of enriched content. The content is not only limited to the vast amount of information online, but also bears the peer component, allowing students to benefit from sharing ideas with peers. This strengthens the collaboration between the students and understanding that writing is an interactive language skill. The regular classes, of course, do not neglect the importance of research; however, since the students are not linked to the online world, classroom boundaries restrict the research opportunities for a certain extent. Finally, it contributed to students' perception of writing by showing the students that writing is a part of life, not a set of skills aiming at producing isolated texts. This helps students grasp the role of writing in real life, and bridge the form with the use. This provides students with opportunities to develop a critical eye both as readers and writers.

Keeping these in mind, six different tasks supported with visual materials were developed. Each of them is explained and exemplified below. A complete overview of the blog can be accessed at the following URL:

http://nazmihoca.blogspot.com/2006/03/reflection.html

Homework

This part included regular contextualized homework; however, in Blog the context became real as the audience was not limited to the teacher and the classmates. Students were aware of the "public nature of content" (Dudeney and Hockly, 2007, p. 86) as they knew that what they produced was accessible to readers outside the class including people from other countries and even native speakers of English. The following is an example instruction:

> **Surfing on the net, I have witnessed that the world wide wedding customs page has very limited details about Turkish Traditional Weddings, whereas most of other weddings are presented in details. Let's write how our traditional weddings are, and send them an e-mail to tell them that our page can be a useful source for them.**

Journal

This was an icebreaker activity used at the beginning of each session and used primarily to give students hands on practice. Also this was used as an opportunity to transfer the journal writing component of the regular classroom into this new platform. This particular task aiming at interacting with a web page and exchanging information, served more than a warm up activity because the topics of these journal entries were different from the paper-pencil journals (How?).

The following is an example instruction:

> **While surfing on the net, I have found a very interesting website that I want to share with you. On the website you are asked to draw a pig and based on your drawing, there are interesting clues about your personality. For example, I am a positive and optimistic person. Your task is, of course if you accept, not only to visit that page and learn about yourself, but also to write a journal entry reporting your results and comparing them with your personality.**

If the webpage gives some clues about you, give me some examples. If not, tell us how different you are. Remember, I also did the test and found a bit about myself. Have fun! Click on the link below:
http://drawapig.desktopcreatures.com

Reflection

This part was designed to elicit students' opinion on the innovative process as they were practicing. They wrote their opinions about their experiences upon completion of each session. This instant information helped restructuring and refining the goals of the new platform and the writing course in terms of students' changing need in the learning environment. The following is an example instruction:

> **How useful/useless was this computer based classroom? Tell me about the strong and the weak points of the lesson. What suggestions do you have for the lesson?**

Useful Links

The main goal of this part was to have students share interesting links they had found and considered useful for everyday life or education.

Another objective of this activity was to have students think about the possibility of using these links in the way the teacher used the links for web-based writing purposes. The following is an example instruction:

> **You can add links that we can use for classroom practices like the PIG PAGE. Please remember to add a description of the page and how we can use it.**

Your Questions

In this section students could ask for clarification when they had questions in their minds. These questions were primarily addressed to the teacher and also to their peers since the platform were designed to encourage students to study in their own time. This would facilitate working on their own.

This section also provided feedback to the teacher for the revision of tasks and prompts and informed him about the type of assistance the students' needed. The following is an example instruction:

> **You can ask questions about the writing class here.**

Writing Hits

This part functioned as the notice board in regular classes. Upon the completion of the assigned tasks, students' best works were chosen by the teacher and posted. This would provide two major benefits to the learners.

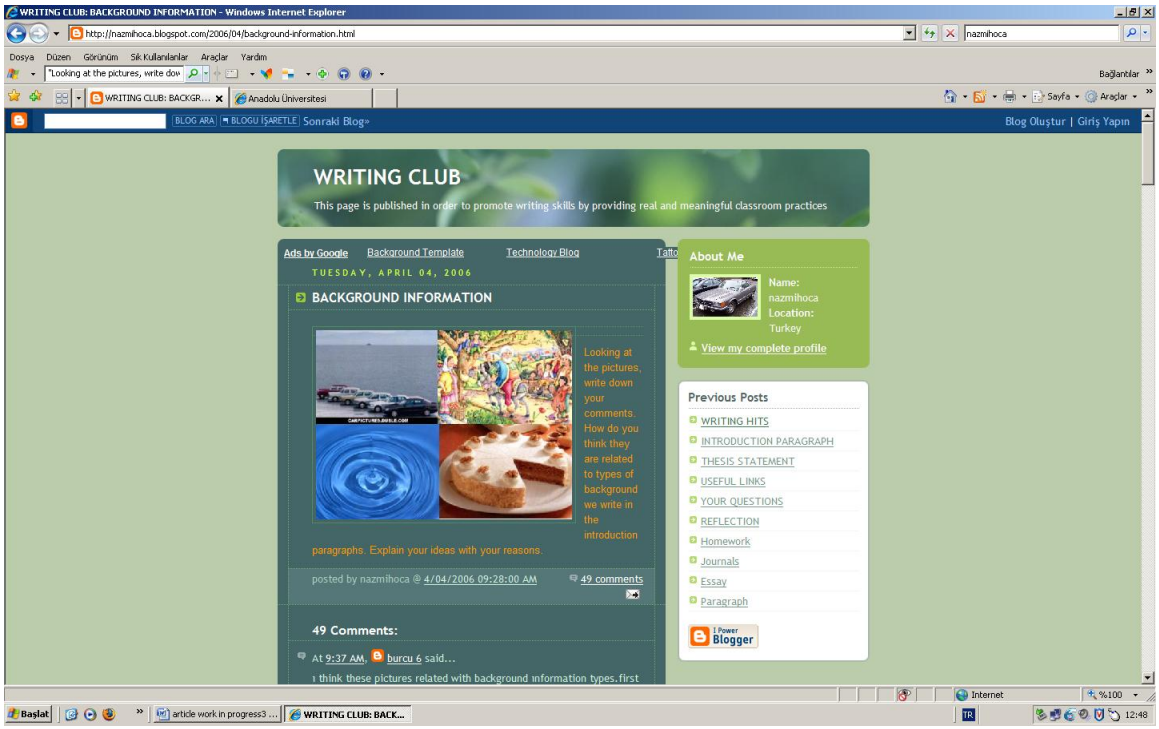
Firstly, they have the satisfaction of producing the best work and sharing it with their peers and the real world. Moreover, these samples would stay on the web forever. The following is an example instruction:

> **Here you can post your writing suggested by your teacher so that visitors can read The Best of Writing from various students.**

Reinforcement Activities

The aim of activities in this part was to help learners understand the basic concepts of the course like essay, thesis statement, and introduction paragraph and to help the teacher to see learners' understanding of them. By the help of visuals and questions students were encouraged to think about the concepts covered in the course and reflect on their interpretation of it. The following is an example:

> **Background Information: Looking at the pictures, write down your comments: How do you think they are related to types of background we write in the introduction paragraphs? Explain your ideas with your reasons.**



Data Analysis

For the analysis of the data, first of all, learner reflections were divided into communication units. A communication unit is defined as "a unit being a separate expression about a thought or behavior" (Mangelsdorf, 1992, p. 276). Then, Constant Comparison Method (Glasser & Strauss, 1967, cited in Lockhart & Ng, 1995) was used. In this data driven method, categories emerge from the data. By comparing and contrasting the incidents occurring in the data, the categories are driven. Because the analysis is based on interpretation, two raters independently coded the incidents in the data and inter-rater reliability was calculated using Tawny and Gast's (1984) formula:

$$\frac{\text{the n of agreements}}{\text{the n of agreements X the n of disagreements}} \text{ X } 100$$

The inter-rater reliability was found to be 94%.

PRESENTATION OF THE RESULTS

As a result of analysis of students' reflections seven themes emerged. In this section firstly these categories are defined and exemplified by using excerpts—verbatim translations of students' responses—from students' reflections. Then, the frequencies of these categories are presented.

Reframed Attitudes: This category refers to the ideas which indicate that some major changes took place in students' perception of the writing class in general.

"I like the writing lessons more. The only reason of this is this program."

Personal Enjoyment: This category refers to the ideas which indicate that writing class was a source of fun for students.

"Your lessons were very enjoyable. If the lesson gives fun, learning becomes permanent."

Academic Skills Development (Computer Skills, Research opportunities): This category refers to the ideas which indicate that the blended writing innovation has contributed to Academic Skills.

"I love the course because I' m progressing my keyboard."
"We need information while we are writing something. We cannot find out everything. The Internet is useful for us. When we search something, we just find."
"I like touching keyboard of a computer. I like speed..."
"Particularly, using computer lab is a magnificent idea. I liked it very much because it gives us opportunities, for example we could research what we need for our homework."

Up-to-datedness (Technology Era, Real Life Value): This category refers to the ideas which indicate that the innovation introduced in the writing classes has some operational value in the real life and compatible with rapid technological changes in today's world.

"This is the future of the world. This is the technology age."
"Trying to show writing not as a part of English, but as part of real life and doing it with the most useful device of our age, computer and the Internet, is the smartest thing I have seen in Turkish education system."
"I think books are boring and have only classical opinions or information. We learnt about real life. We wrote to all around the world because we had an internet page"

Reflective Thinking (Appreciation of Teacher, Future Suggestion, and Confessions/Self R evaluation): This category refers to the ideas which indicate that students have a critical eye on the Blended Writing Course they have experienced and the performance they have shown.

"I congratulate you for starting this kind of a practice."
"This practice will be more useful if we can go to the computer lab more often."
"Thanks a lot. I hope you continue using this program in the following years."
"I think I did not do the activities as I should have done. I am sorry for this."
"Everybody should use computer lab like us. This method is valuable for our country's future."
"We could go to lab and write our journals."
"Keeping this in mind, half of the lessons can be carried out in the computer lab. English is a global language."
"Reflection is nice. This means that our ideas are important."

Writing Course (Lesson, Method, Activities): This category refers to the ideas which indicate students' personal judgments of the components of the writing course such as, method, web activities, and pictures. Students expressed both positive (productive, creative, deductive, innovative, interesting) and negative (teacher-oriented meaningless, boring, useless) views about writing course.

"I definitely need what I am learning in the writing course in the future."
"Writing different text types, makes this lesson fun, otherwise it is unbearable."

Interactional Opportunities (Personal Voice, Goodbye Utterances): This category refers to the utterances that indicate students' natural interaction with friends, the teacher or the *outside world.*

"We shared our paragraphs and essays with other classes on the net."
"I agree with my friend in Group 6 :)"
"I think this is the last time we came here. Bye! :)"

After categorizing the communication units in the reflections, the frequency of each issue was calculated. The findings are presented in Table: 1 below:

Although learners' reflections on the fall term writing course focused only on "Writing Course", in the instant reflections, they focused on their reframed attitudes, personal enjoyment, academic development, reflective thinking, and up-to-datedness of the materials and interactional opportunities presented by the blog.

In total there were 625 communication units in the instant reflections. Ninety-four percent of them expressed positive views about the blended writing course and only 6% of them included negative views all of which were related with "writing course". The distribution of positive views from the highest to the lowest was: writing course (38%), reflective thinking (28%), personal enjoyment (15%), interactional opportunities (5%), academic skills (4%), up-to-datedness (3%) and reframed attitudes (3%). (See Table. 1 belove)

The analysis of the cover letters indicated that, in total there were 226 communication units and only 1% of them expressed negative attitude towards writing course and 99% of them expressed positive attitudes.

Table 1 Distribution of the Communication Units in the 1st Reflections, Instant Reflections and the Cover Letter

Category	1st Reflections				Instant Reflections				Cover letters			
	Positive Comments		Negative Comments		Positive Comments		Negative Comments		Positive Comments		Negative Comments	
	n	%	n	%	n	%	n	%	n	%	n	%
Writing Course	59	21.5	216	78.5	238	38	35	6	121	54	3	1
Reflective Thinking	-	-	-	-	174	28	-	-	25	11	-	-
Personal Enjoyment	-	-	-	-	92	15	-	-	32	14	-	-
Interactional Opportunities	-	-	-	-	31	5	-	-	7	3	-	-
Academic Skills	-	-	-	-	24	4	-	-	6	3	-	-
Up-to-datedness	-	-	-	-	19	3	-	-	27	12	-	-
Reframed attitudes	-	-	-	-	12	2	-	-	5	2	-	-

Slightly more than half (54%) of the positive comments was related with writing course. The percentage of communication units focusing on reflective thinking, personal enjoyment and up-to-datedness were 11, 14, and 12 respectively.

The percentage of communication units focusing on interactional opportunities and academic skill were equal (3%), and only 2% of the communication units focused on reframed attitudes. (See Table 1)

Although the percentage of communication units expressing change in students' attitude towards writing is low (3% for instant reflections and 2% for the cover letters), both the diversity and the nature of the issues addressed in the instant reflections suggest a positive effect of blended writing course on learners' attitudes towards writing.

DISCUSSION AND CONCLUSION

Based on the findings of this study it can be concluded that the changing needs of life bring up new issues. Although the paper and pen are the vital instruments for writing, in the digital era medium of communication is also transformed into digits and bytes. In order to catch up with these rapid changes and to prepare our students to real life, some variations like blog can be inserted into course syllabi or school curricula.

BL environment practiced in this study has either directly or indirectly contributed positively in the following categories.

- **Reflective thinking skills**
- **Personal enjoyment**
- **Academic development**
- **Writing Course**
- **Reframed attitudes**
- **Interactional opportunities**
- **Up-to-datedness**

The Blended writing classroom was implemented as a solution to a pedagogical problem the teacher had to cope with. As Zhao (2003) stated technology should be implemented to solve pedagogical issues. The issue the teacher had was lack of real audience for student writing. However, with the implementation of Blog this problem was solved as the online tasks addressed a need in the virtual world and this need was met by student generated texts. Therefore, the task had a real life goal and authentic audience.

Students who participated in this action research described the blog application as involving, interactional, from real life, reflective, technologic, useful, productive, creative, and innovative. These findings are similar with the findings of Leone's study (2008) as the innovation had a great impact on "the learners' language skills, especially in listening and speaking, management of ICT tools, satisfaction levels with the contents proposed, as well as on cross-curriculum objectives such as developing autonomy, building learner confidence, creating networks, promoting collaboration…." (p. 127).

Also learners' description of Blog matches with Jonassen's (1995) description of an effective learning environment as according to him an effective learning environment should reflect these features. This suggests that innovation was successful in creating an effective learning environment.

Moreover, Jonassen (ibid.) adds that such environments lead to meaningful learning and broader world of experience. This also matches with the findings of the present study.

After the intervention, even though students did not explicitly state that the writing class was more meaningful, they also did not view it meaningless as they did before the blended writing course. They also continuously stated that the activities were different and innovative which may lead to a broader world of experience. Furthermore, the web platform provided an interaction opportunity with no place and time boundaries (Ahonen et. al., 2003, p. 9) and learners appreciated this as participants pointed out interaction opportunities provided by the blog in the instant reflections.

Besides these opportunities, students were able to address world wide audience and research for the information they may need (Brooks, 2001: 20) as they indicated in their reflections. This type of realistic environment may also nurture the motivation and the findings of this study suggests that students negative views turned into positive ones after the blended writing course was carried out.

Student participation in this practice was voluntary and student drop out was not observed although the frequency of logging in changed from student to student. In her study, Stracke (2007) identified three reasons for student drop out. To begin with, "lack of support and connection/complementary between f2f and computer assisted components of the 'blend'" (p. 57) was the first reason. When the BL implemented in this study is analyzed, it can be easily seen that there was continuous support as the students studied in the computer lab for two-hours every week. Also, the f2f and Blog was integrated and there was reference to class work in the Blog tasks. The second reason she identified was not using hardcopy materials and pen and paper; however, in the practice presented in this study, these continued to be an essential component of student work. Another reason for drop out was learners' rejection of the computer as a way for language learning. However, in the current practice, the Blog was used as a platform for exchanging ideas and information, not for language learning.

IMPLICATIONS

Although this is a small scaled study, students' reflection on the blended writing course has certain implications for teachers and course developers.

First of all, teachers must be aware of the fact that when there is an issue in the class, the solution may not be within the class.

This can be provided by developing alternative ways of bringing something from real life to the class and taking something from the class to the real world. Especially in the productive skills, the output may need to be addressed to a real audience, which probably leads students to have a real purpose and more interest in doing the task.

The other issue that may be of concern is that keeping the class up-to-date highly depends on the teacher. With the changes in the technology, needs in the real life might change, so are the tools.

In order to keep up with these changes, the teachers need to revisit their roles in the class and improve their skills in technology to make use of platforms which has no place and time boundaries for further classroom activities.

The third implication of this study is related with research and computer skills which are generally neglected in writing classes. Before writing, students might be required to do certain amount of research in advance. Moreover, for computer skills, they may also be required to write their written work on the computer rather than with pen and paper. Another issue is students' interest in reflecting on what they do.

Therefore, the classroom environment should promote constant reflection opportunities to sort out the problems occurring in the classes or to let some issues which the teacher might have never thought about earlier emerge. The final point is that such web platforms must be encouraged in the other courses in order to form a blog portal of the school.

As a conclusion, to let students benefit from the writing practice, both teachers and course book designers need to link the classroom and the real life by designing real life bounded activities, tasks or course books.

SUGGESTIONS FOR FURTHER RESEARCH

Results of this study indicate a number of areas that need further investigation. First of all, as this study was conducted on Intermediate level students, other studies need to be made on other levels as well. Furthermore, as this study covered only the writing course, a similar study can be carried out for speaking classes with a purpose of "speaking for real life" or "listening for real life". Finally, some other studies may be conducted in longer periods like two or more years, and the results may be compared and contrasted.

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ENVIRONMENTAL EDUCATION VIA TELEVISION: Eskisehir Camlica District Case

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ABSTRACT

We define an environmentally aware individual as: someone who has knowledge about the ecological principles and relations, who cares about environmental problems and events, who knows the meaning and significance of the social, political and economic aspects of environmental problems, and who can organize their close environment to solve these problems. However, we encountered a target society that was only partially aware of the environmental problems and events. The individuals of this society had very little knowledge regarding ecological principles and their social, political and economic aspects and relationships. A study was conducted on women aged 15 and above who live in the Camlica district of central Eskisehir. These women were unemployed and uneducated housewives. As these women were not aware of environmental problems, they were distant to any solutions. This is the basic cause of their inability to organize their neighborhood.

As a result of the aforementioned study, it can be inferred that education is an inevitable necessity to carry the targeted society to the position of environmentally aware individuals. Television is considered to be a good educational tool regarding education in environmental matters, especially when targeted towards a group with a high ratio of television watching habits as opposed to reading habits. With these considerations, the properties of an environmental education program must be determined. To summarize, an environmental education television program which appeals to the target society in a sequence from simple to complex, general to specific is capable of captivating the interest of the target society for a duration long enough to achieve its objectives. This program must be presented clearly and understandably by an aurally and visually appealing and effective host for the audience to be able to comprehend the program.

Keywords: **Environmental awareness, distance education, environmental education, environmental education via TV.**

INTRODUCTION

Serres states that the world has become "a victim" which was once seen as an enemy in his book "Contract via Nature" and according to him the hope for the future is sustained in this way: In order to preserve the world we should make a decision about the peace among ourselves and in order to preserve ourselves we should make a decision about the peace with the world (Serres, 1992).

In fact the world is not presented to human as an infinite tool that he/she can arbitrarily use and the humanity will reach an end once the world is terminated. Nevertheless the second half of the 20th century should have been awaited until the human can conceive that the something is going wrong. So that the 60's were become the time that the human realized the developing pollution and the fact he/she himself/herself has been the cause of the pollution. Briefly the environment where all of the species with him/her exist and sustain all of their activities has been becoming hard to retain life. When it's realized that something should be done the first meeting was organized for the protection of environment. The first declaration which was a consequence of the the meeting realized by UN in 1972 entitled "Human and His Environment" was a call to protect and develop the environment for the benefit of all humanity and future generations. International Program for the Environment has been initialized as an addition to United Nations Environment Program in 1975 designated according to the Stockholm Declaration. Environmental education could be defined as the recognition and discernment of the values, attitudes and concepts about the bio-physiological and social environment of human. In other words the environmental education is a process that grows individuals who are aware of their environment with the knowledge, skills, values, attitudes and experience. Also these individuals should have determination for resolving the present and future problems as persons or people and should be satisfying their needs without harassing the future generations. UNESCO defines the individual who has the awareness of environment as follows:

- **Possessing the information on ecological principals and relations**
- **Being aware of the environmental issues and incidents**
- **Knowing the social, political and economical meaning of the environmental issues**
- **Having the information about the possible resolutions for the issues**
- **Having the capability to organize his/her close vicinity for resolutions (http://www.unesco.org/education/uie/confintea/pdf/6a.pdf retrieved on 29. 07. 2009).**

When the importance of the problem has been considered in mind it could be said that the environmental education should become a part of a lifelong teaching process. Moreover the anxiety with the protection of environment should become a dominant value of the society. Consequently how is the educational system for making this anxiety as a dominant value with intent of lifelong education realized arises as a question? For the sake of the importance of the issue environmental education programs that have been implemented in all categories of education would become an answer. Hence the individuals who have personal awareness of environment could be raised in the very early stages of age within the process of teaching and learning. By the way the question with the individuals who were left out of conventional education while having a larger population than others who were taught properly is appeared.Distance education would be a choice which is "a system of education model where the students and teachers in different settings realize their learning and teaching process with communication technologies and mail" (Isman, 1998, p.23). Distance education plays an important role in the education of people who have remained outside conventional learning. The utilization of distance education in the environmental education, which is an important issue for the benefit of humanity, is a necessity. Distance education is one of the best ways to resolve the problem provided with its ever developing technology.

learning and teaching enhanced, diversified and began to correspond the different educational needs in society" (Sharma, 1997, p.5).

Basically speaking the educational media which have been used in distance education system remain three dimensional: Printed material, broadcast and face to face communication (Alkan, 1996, p. 245). Radio, television, teleconference, computer networks, viewdata and teletext remain as the branches of broadcasted distance teaching. Even though new technologies are added to the distance education system everyday television remains important in its privileged position in Turkey. The features that make television exceptional in environmental education can be counted as:

- **It is a familiar media for everyone**
- **It connects motion and movement in one setting**
- **It makes the complicated and abstract concepts explicable by the way of visual simulation**
- **It has effectiveness in presenting the unknown and new environments**
- **It has an option of content repetition**
- **It can summarize the issues at hand**
- **It has effectiveness in presentation**

Sharma states where the distribution of the printed material is considered then the role of radio and television in spreading the knowledge about environmental issues enhances. In fact very extensive people of the society who have been separated by geographical and economic bounds can be reached with the use of electronic media (Sharma, 1997, p.9). Eventually television is one of the most important electronic means that can be utilized in environmental education where bigger amount of masses considered.

The purpose of this study is developing a proposal for the features of the TV programs that will raise awareness in targeted individuals with greater environmental responsibility. In order to develop this proposal the attitudes towards either watching television and/or environmental issues is determined.

While the questionnaire is being developed the individual with an awareness of environment as recognized and identified by UNESCO became a guideline. Afterwards the facilities and limitations of television as educational media and the features that such television program should hold are determined and then program proposal is developed.

PURPOSE

To determine the necessary properties of an educational television program intended for a targeted audience with significant properties and to induce environmental awareness in the targeted audience. The following research questions were examined. Regarding television;

What Are The Traits Of The Targeted Audience?

A. **From the viewpoint of television watching habits;**

- **Do the targeted audience own TV sets?**
- **How many hours do the targeted audience watch television?**
- **What kinds of programs are viewed most?**

B. **From the viewpoint of the level of information about the environmental issues; The level of information about the environmental problems and events**

- **Why does air pollution occur?**
- **What is global warming?**
- **What is ground pollution?**
- **What is noise pollution?**
- **What is water pollution?**
- **What is understood by the term "recycling of solid waste"?**

Limitations of the Study

- **This particular study was conducted on women in the Camlıca district of central Eskisehir aged 15 and above, whose only responsibilities were being house chores and who never received any formal education.**
- **The communication is only transmitted via the television program, which has no particular aim of educating people about the environmental issues.**
- **The references are taken from the sources that are reached through literature review**
- **Also the answers are taken from the survey that has been realized through field study make another limitation.**

METHODOLOGY

This study depicts television usage habits and basic environmental knowledge in a specific setting.

Study scope and sample population

The scope of this survey is limited to unemployed housewives residing in Camlıca district of central Eskisehir. The survey sample for this study was selected on a basis of general information regarding district residents obtained from local authorities.

Headman and from the District Houses Responsible

The district was established mainly by workers of the Sumer Bank Cotton Factory during the second half of the 1960's. Immigrants from neighboring cities, towns and villages contributed to the establishment of the district. A second wave of immigration took place in the 1980's, once again sourced by towns and villages of Eskisehir.

The driving force behind immigration has been educational opportunities for children, and the desire to live in a city. Another wave of immigration began in the year 2000. It must be stated that a great amount of immigration was lasting mainly sponsored by the eastern and southeastern regions of Anatolia during this study.

The number of streets within this district at the time of this study was approximately 350. Based on the aforementioned information, 18 streets were chosen as a sample and it has been decided that a 5% sample of the population would be sufficient to represent the field of women aged 15 and above residing in the Camlica district of Eskisehir. For the determination of the streets included in the sample population, the district was divided into three separate residential units, with 6 streets from each unit providing the sample.

As such, it was ensured that the demographic information obtained would reflect the district as a whole. For the determination of sample streets in each unit, causal sampling was used. The streets to be surveyed were selected on the basis of geographical distribution. The primary streets were selected from the oldest residential area of the district: Baysallar, Yilmazsoylu, Ozdemirler,Ilke, Coskunay and Tepebasi streets. The streets of residents from the 80's to be surveyed were Cobanlar, Figen, Uzunlar, Sümerler, Topcam and Yesiloba. The streets of eastern immigrants to be surveyed were Ayseli, Yeniköy, Batman, Yelkenli, Şehit Adnan Yüksel and Derepınar.

Data and Collection of Data

The following data was collected for the achieving the research objectives: Information about the television ownership of the targeted audience and viewing habits, most viewed program types, their views on environmental programs, the perceived reason for air pollution, the perceived meaning of global warming, the perceived reason for ground pollution, the perceived definition of noise pollution and of the recycling of solid waste, and the willingness to participate in such a program. A survey was developed while collecting the data. The survey consisted of 31 questions, of which 30 were multiple choice and one were being a question regarding observations.The survey questions regarding television were prepared with assistance from producers and directors of television programs. Environmental questions were prepared with assistance from the teaching staff of the Anadolu University Environmental Engineering department. 100 copies of the survey were prepared. The surveys were distributed on the 12th of September, 2006. Due to the fact that some of the participants were illiterate and therefore incapable of reading and understanding the survey, 52 participants were interviewed while the remaining 48 surveys were collected on the same date. The field study came to an end on October 20th, 2006.

Analysis of the Gathered Data

The surveys were individually analyzed and coded. The number of completed surveys evaluated was 48, while the number of surveys filled based on interviews were 52. The total number of surveys analyzed was 100. The inventory of the surveys was conducted by hand. Due to the specific nature of the research, the expression of the findings as numerical and percentage information were found to be sufficient, with no other statistical analysis performed. Nevertheless, the relationships between different variables were established when deemed necessary.

FINDINGS AND INTERPRETATION

In this section, the findings of the survey analysis in accordance with the research objectives are provided.

Socio-economic Properties of the Population

Under this heading sample population is questioned for their age, marital status, house residency, educational status, family origins in city, income levels.

14% of the populations are in between 15-25 years of age, 23% of them are between ages of 25-35, 22% are 35-45 and 37% of them are at the age of 45 and above. 89% of them are married and %11 is singles. Among the population, only 6% of them are living alone in their apartments and %18 of them are living as two people in an apartment. %8 of them is living as three people and the people living as four remain %39. More crowded of the population are 29%.

Table: 1
Target Population's Level of Literacy

Illiterates	14%
Primary School Graduates	51%
Middle School Graduates	9%
High School Graduates	17%
Higher School Graduates	6%

14% of sample population is illiterates. 51% of them remain primary school graduates. 9% of them are graduates of middle school and 17% of them remain as high school graduates. Most of the high school and higher education graduates are among the ages of 15-25. Most of the illiterates and the primary school graduates are above the age of 45. 60% of the population is Eskisehir natives and the rest 40% is immigrants. 14% of natives had come from the towns and villages of Eskisehir vicinity and 36% of rest had come from neighboring cities and become Eskisehir's street residents.

However there remained some immigrants coming from Kars (4%), Erzurum, Elazig, Malatya, Samsun, Istanbul and Ankara. 4% of them remains as immigrants from Bulgaria. As for the level of income, 79% of them have an income level of 350-1000TL. Most of the contactee's described their income level as minimum wage. %5 of them did not have any income and feed them from the municipalities hash.

The subjects generally live in crowded households with large families. The education level is low, and more than half immigrate from neighborhood cities, towns and villages to settle into the district with low income levels.

Their Interest Levels Regarding Television, Books, Newspapers and Magazines
The following findings represent the level of interest of the target population regarding television, books, newspapers and magazines: %99 of the population has TV sets and 25% of them have two or more sets. 56% of the populations have their TV sets in their living rooms and 17% of them have them in their halls. Subjects who have two or more TV sets put them respectively in this order: Primarily living room, the kitchens follow and the rest of them remain in bedrooms.

Table: 2
TV Watching Rates in the Region

1 hour	**10%**
2 hours	**21%**
4 hours	**17%**
Halfday watching	**26%**
Full day watching	**21%**
Watching none	**2%**

People who watch the TV half day long set are 26% of rates. Both 2 hour watchers and the people who watch it full day long have a ratio of 21%. 17% of them watch it for 4 hours and 10% of them watch it for 2 hours. Subjects who never watch TV are 2% of the population. The variable of age has been found significant.

For instance young people who are of 15-25 years of age watch TV between 4 hours to all day long. 41% among 45 years of age and above watch it for 1 to 2 hours. With a rate of 57%, news programs are the most watched ones among the program types. TV series and movies have a %50 rate. Women's programs follow after the latter. The rate for Anadolu University TV Channel TVA is only 7%. When people were asked if they would watch a program regarding environment 94% of the population answered positive and the rest 6% replied negative. Nearly all of the subjects own televisions. More than half of the women surveyed watch television for 4 hours a day, with viewing times spread throughout the day. The primary viewing preferences are the news, TV series' and movies. Almost all participants stated that they would be willing to watch movies about the environment. Regarding newspapers, books and magazines, almost half of the participants indicated that they never read newspapers, books or magazines. Twenty percent of those indicated that they read religious books and the Koran. As such, the ratio of book reading is merely 25-30%. 37% of the participants who stated that they read newspapers also indicated that they would suffice with merely reading the first page of the newspaper.

As a result, it can be said that more than half of the subject population watch television when their chores are completed, while the ratio of reading newspapers, books or magazines is very low.

Measured Knowledge Regarding Environmental Pollution

Under this heading the answers regarding the questions concerning the prospective participation of subjects to the programs regarding environment were examined such as:

Air pollution, global warming, ground pollution, noise pollution, water pollution, recycling of solid waste. About air pollution 95% of subjects answered the option about burning of the fuel that causes air pollution regardless of other options.

Table: 3
Distribution of Answers Concerning the Question "What is Global Warming?"

Warming of All Species	**4%**
Increasing of Average Air Temperature	**47%**
Boiling of Water	**1%**
No Answer	**49%**

49% of test subjects did not answer the question about global warming. 47% of them gave the correct answer by choosing the option "Increasing of Average Air Temperature". Hence the answers indicate that the half of the population do not have information about global warming.

The question about the ground pollution was answered with the option "meddling of chemical waste to the ground" by 62%. 24% of them thought the food remnants meddling the ground is the correct option. The rate of correct answers for the noise pollution is 91% and %87 replied correctly for the question concerning water pollution.

Table: 4
Distribution of the Answers Concerning the Question About

"Recycling of Solid Waste" Could the Solid Waste be Recycle	
Yes:	69%
No	38%

69% of the population finds the recycling of solid waste possible. 38% of them of say they are impossible. A question concerning the waste which is recyclable was answered correctly by 80%. 18% of the population finds the plastic material is not recyclable. When it is asked what is the solid waste coming out of the house, 59% answered as food remnants and 60% also stated it is ash. 24% of them answered that solid waste is comprised of packages. The coal was used as fuel in Camlica so far. However the natural gas have been provided by the municipality this year so it is thought that the amount of ashes that comprise solid waste would decrease. Residents state that they could not use natural gas so far due to the financial reasons. 65% of the population finds the recycling process important or very important. %30 finds it useless and time consuming. People who put out the packages separately are 33% and 62% of them does not do it. 9% of them burn their garbage. 2% of them bring their garbage to the detergent seller in the street. 40% of the test subject group thought that recycling solid waste was impossible.

Thirty percent of the group thought that recycling solid waste was unimportant or time consuming. A high ratio of solid waste is given to the employees without doing the decomposition. Eventually, 80% of those admitted to be willing decomposition and they give the solid waste to the garbage man. The ratio of correct answers to incorrect answers regarding air, noise and water pollution is high. The ratio drops too slightly above half regarding ground pollution while the correct knowledge regarding global warming is also about half. %40 of the population

What are the Suggestions of the Population about the Resolution to the Problems?
When the people are asked about their opinions regarding the resolution to the given problems most of them omitted the question. Rest of them gave their demands like "our roads should be paved with asphalt" and "our garbage should be taken by the people in charge in exact timing" or "persons who put their garbage outside earlier should be punished."

Research Outcomes
This study was conducted on uneducated, unemployed home-bound females aged 15 and above living in the district of Camlıca in central Eskisehir. It indicates that the target population has a social structure in which most of the time available is consumed with house chores and watching television. Moreover the rates of newspaper, book and magazine reading is very low.

The population is also undereducated and has low income levels. Their perception of the environment is limited to the street they live on, and that environmental pollution can be averted by paving asphalt on their street, planting trees, and imposing penalties on neighbors for disposing with garbage at incorrect hours.

The targeted population is knowledgeable about the fundamental problems of air, ground, water or noise pollution. However they do not have the properties of the individual who has environmental awareness. For instance 40% of them think that the recycling of solid waste is impossible. 30% of them find it useless and time consuming. Also they are unable to develop suggestions about the resolutions for the environmental issues. When half of the population was interviewed they stated that the sources of information about the environmental issues are the women's programs and the news from popular press.

In sum the public that will be targeted by TV programs is aware of the environmental problems and events. However they don't have any opinion about the social, political and economical meanings of these problems. They are unable to develop and resolutions for the problems at hand and also they don't have the desire to do anything about these issues by themselves or their close vicinity. The general belief appears to be that the continuation of their lives in a carefree manner lies in the hands of authorities.

ENVIRONMENTAL EDUCATION VIA TELEVISION AS A DISTANCE EDUCATION MEDIUM

The target public that has been determined in their attitudes towards environment and television watching will be targeted by television programs for increasing their sensitivity about the environmental issues. These programs should have certain properties and qualities. However the properties of television as an educational medium primarily examined here.

PROPERTIES OF TELEVISION

Television is generally perceived as a technical or physical instrument, which transfers the message by means of signals. However, in this study, it is discussed as a media, which produces communication products and uses cultural and aesthetic conventions to create a "text". (Fiske, 1996)

It is possible to list the features of television in this aspect such as:

- **Television is an electronic device in which people physiologically perceive images as living pictures. As such, it is an easily attainable, easily identifiable device ideal for shared experiences with an audience. Therefore, it does not need a special medium to watch a film; it presents a medium that can be viewed alone or with others.**
- **A device which can offer moving images.**
- **Because of being an audio-visual device, it is more effective than individual aural or visual devices.**
- **Television is a device of 3X4 dimension. The relation between the height and width always requires television graphics in a horizontal format of 3X4 ratio.**
- **Due to its electronic structure and relatively small dimensions, details cannot always be conveyed to audiences, and therefore television is not suitable for images of great detail.**

After classifying some of the properties of television as a medium, it should be noted here that it has some certain facilities in providing education: Since most people have watched television, the medium is familiar. Motion and visuals can be combined

in a single format so that complex or abstract concepts can be illustrated through visual simulation.

As For the Limitations

Broadcast quality television is expensive to create. Video production is time consuming and can be technically demanding, often requiring relatively sophisticated production facilities and equipment. Other limitations of television can be counted as it targets average audience and it is difficult to renew or update the content after the production is completed (Willis, http://www.uidaho.edu/eo/dist5.html, retrieved on 10.03.2009)

The Disposition of the Content

Generally speaking, the actual educational content is just as important as the arrangement of content. Various guidelines and regulations must be taken into consideration:

- **There are benefits to projecting the content from simple to complex. People are less challenged in this order, and educational theorists agree with this notion.**
- **There are advantages of passing through a concrete life to an abstract one but it can be illustrated in mind life to provide individuals with easy learning. This can be identified through the concrete to the abstract**
- **Due to human nature, people prefer environments closer to their own, thereby justifying an approach to content organization from close to far most likely.**
- **Another educational method that facilitates learning is beginning with the subject as a whole, and discussing details later. This technique is also known as "comment theory".**
- **Research indicates that the human mind primarily perceives similarities. The perception of differences requires effort. As such, a technique organizing from similarities to differences is required in content organization. (Simsek, 2000)**

It is very important to determine the structure when preparing an educational television program.

The same content can be reflected to the target society as educational or open edged, effective or passive, structured or non-structured, combined or independent, controversial or impartial by means of the view of the programmer. (Chandler, http://www.aber.ac.uk/media/Modules/TF33120/tvstyle.html retrieved on 03.08.2009).

CONCLUSION

An environmentally aware individual is someone who has knowledge about the ecological principles by their relevancies' and cares about environmental problems and events. Also he/she is someone who knows the meaning and significance of social, political and economic aspects of environmental issues and he/she can organize his/her close environment to solve these problems. However, we encountered a target society that was only partially aware of the environmental problems and events. The individuals of this society had very little knowledge regarding ecological principles and their social, political and economic aspects and relationships. A study was conducted

on women aged 15 and above who live in the Camlica district of central Eskisehir. These women were unemployed and uneducated housewives. As these women were not aware of environmental problems, they stay far from any solutions. This is the basic cause of their inability to organize their neighborhood. Education is an inevitable necessity to carry society to the position of environmentally aware individuals. Television is considered to be a good educational medium regarding education in environmental matters, especially when targeted towards a group with a high ratio of television watching habit as opposed to reading habits. With these considerations, the properties of an environmental education program must be determined. This dilemma can be resolved through two separate approaches: To analyze content and also the structural specialization of programs.

Content

When the superficial level of knowledge of the targeted audience is considered the theme of the programs should be made accordingly. Primarily the audience should be made aware that he/she himself or herself also causes environmental pollution. Hence he/she can realize that he/she can do something and create solutions for the problems at hand by the conviction provided with the programs. These programs must be prepared under three headings. The first section of programs should identify environmental problems. They should provide viewers the required differentiation and reinforce confrontation of the target audience with reality. The second section should be a more educational sequence, providing familiarization with the matters at hand. Lastly, discussions should be featured.

Structural Features

The allocated time is projected to be 5 minutes for the first section, 10 minutes for the second and 5 minutes for the third section.

Visual Structure

In the first section, the use of surreal images with environmental sounds improves the effect on viewers. Experts have confirmed that for the second section, close-up shots are effective. Arranging the content from simple to complex and utilizing three dimensional animations when necessary enhances the experience. Regarding the editing, sufficient time between shots should be provided so the viewer can comprehend the visual material, and fast cuts should be avoided while editing.

Audio Structure

This section pertains to the audio portion of television programs. The most important audio element in such programs is human voice. Therefore, the most effective method of influencing the target audience is the utilization of an aurally appealing voice along with a visually appealing image. In addition, the use of informal, sincere narrative with filler words retained in the text along with long sentences to be slowly narrated should be considered as more effective.

When necessary, music and effects may be used to portray the intended image to the target audience as well as to establish the intended aura and atmosphere on the subject. The use of music and sound effects enhance the perception of realism, and therefore draw more of the attention of the target audience; thereby enhancing learning. Another assumption is that the use of natural atmospheric (environmental) sounds is effective when used with the target audience.

SUGGESTIONS

An environmental education television program which appeals to the target society in a sequence from simple to complex, general to specific is capable of captivating the interest of the target society for a duration long enough to achieve its objectives. This program must be presented clearly and understandably by an aurally and visually appealing and effective host for the audience to be able to comprehend the program. According to the outcomes of the study television is important and functional in creating an awareness of environment in Turkish society so that it should be utilized in an effective manner. Television is an important medium because it requires low expenditure compared to other media for the educational institutions and individuals and it has a rapid access to the masses when the amount of audiences it reaches considered. Also it has proper structural features and audio-visual properties. So that the television programs which have environmental content may have such properties:

- **They can be used in primary and higher education through distance education even they can be utilized as compulsory with law and providing success from the modul would be recognized as a prerequisite.**
- **They can be sponsored by local authorities and non-governmental organizations and other private institutions.**
- **A kind of affirmative action in education would be provided by an exchange with a familiar culture.**

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THE CHALLENGES FOR MARKETING DISTANCE EDUCATION IN ONLINE ENVIRONMENT
An Integrated Approach

Edited by Prof. Dr. Ugur DEMIRAY,
Assist. Prof. Dr. N. Serdar SEVER,
Print ISBN 978-975-06-0596-3, Electronic ISBN 978-975-98590-6-0,
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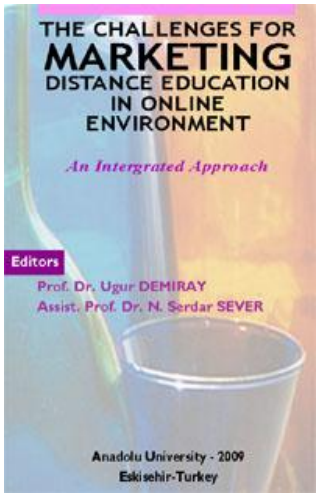

***Distance education*, or *distance learning*, is a field of education that focuses on the pedagogy and andragogy, technology, and instructional systems design that aim to deliver education to students who are not physically "on site". According to the U.S. Department of Agriculture, "is a process to create and provide access to learning when the source of information and the learners are separated by time and distance, or both." In other words, distance learning is the process of creating an educational experience of equal qualitative value for the learner to best suit their needs outside the classroom. Rather than attending courses in person, teachers and students may communicate at times of their own choosing by exchanging printed or electronic media, or through technology that allows them to communicate in real time and through other online ways.**

The purpose of marketing is to understand trends in the field and customer needs in a global marketplace. In this case the customers are students and they could be called as a "kings" of the market. This is a challenge with online learning because the field is in a constant state of development. Marketing online education programs is becoming more of a necessity as global competition increases. To be on time and in a right place-this is the target of distance learning marketing. 37 authors wrote 22 chapters from different 17 universities in 6 countries.

This book is divided into six sections, each dealing with a different aspect of marketing for distance learning programs:

- **strategic framework of marketing for open and distance learning programs;**
- **advertising, promotion, intellectual property issues and collaborative distance education;**
- **marketing in global context;**
- **marketing of language teaching via distance and online programs;**
- **three specific case studies from Turkey;**
- **lessons learned and literature review.**

Strategic Framework of Marketing For Open And Distance Learning Programs

In the first chapter, Demiray and Sever set the stage for the content of the book. They argue for the importance of addressing client (student) centered needs in Open and Distance Learning (ODL) settings, and they present the Integrated Marketing Communications (IMC) approach as one model that may be useful. They review global trends, examples from the Middle East, and they describe what has been done in Turkey. They look at the education as a service.

The second chapter by Tripathi and Mukerji from Indira Ghandi National Open University (IGNOU) makes the case for India, where sustainability through human development and education is a high priority. They present the IGNOU, make an analysis of academic programs, and apply the SWOC method for programs analysis. The authors suggest for maintaining quality services in the competitive Open and Distance Learning market.

In Chapter 3, Demiray, Nagy and Yilmaz discuss comparative strategies between Turkey and Australia in quality assessment, and program development. The authors briefly describe the 4 P (product, price, promotion, and place) approach and Bologna Process.

In Chapter 4, written by Shaik, the relevance of the relationship marketing paradigm to student recruitment and retention in distance learning programs is described. An alternative theoretical framework is proposed based on organizational approach to errors in decision making. The case study is presented.

In Chapter 5 Unsal and Ruzgar propose treating online education as a form of e-commerce. They review the evolution of online education and then introduce a marketing model to effectively create online programs.

Advertising, Promotion, Intellectual Property Issues and Collaborative Distance Education

Section II starts from Chapter 6, where the concept of advertising and advertising campaign is presented by Sabuncuoglu and Gokalirer.

In Chapter 7 Wang analyses the marketing and promoting online adult education. Future trends also discussed.

Ozturk, in Chapter 8, examines the characteristics of the public relations applications on the web sites of the universities offering distance education opportunities.

Cuadrado-Garcia and Ruiz-Molina, in Chapter 9, introduce e-learning as a pedagogical resource. They describe a collaboration e-learning project between two European universities in the scope of the agreements in the European Union. They explain the research authors undertook on student satisfaction with the online activities in the Moodle virtual learning environment and its influence on student performance.

In Chapter 10, prepared by Richardson, Lane and Hancock, the intellectual property issues are described, which is very important when distance learning courses become globalised.

Marketing in Global Context

Section III starts from Chapter 11, which describes the global marketing for local distance education programs, prepared by Kurubacak. The functional model for global marketing characterized by multicultural decision making task is presented in this Chapter.

Telli Yamamoto, in Chapter 12, overviews the marketing implications of e-learning in a globalised context.

In Chapter 13, Ojo examines the marketing of e-learning and challenges facing distance education in Africa. This chapter also examines the socio-political and economic factors limiting its effectiveness on the continent. The marketing distance education in Afrika is described.

Guessoum, in Chapter 14, makes a focus on progress in online education in the Arab World. The author underlined the challenges to online learning in the Arab world.

In Chapter 15, a new model for global online learning is proposed based on current international research and literature in this field. The model proposed by Linder-Vanberschot, Borden and Pagels. The authors also describe the learner characteristics.

In Chapter 16, Rajesh from Indira Ghandi University expands Sir John Daniels' concept of movement from the triangle-pentagon to an octagon.

That is, to the pentagon of Access, Quality, Cost, Governance, Relevance, Rajesh adds Equity, Market Orientation and Consumer Satisfaction to form an octagon that represents the important aspects of distance education. This chapter describes IGNOU and its participation in these processes.

Marketing of Language Teaching via Distance And Online Programs

Section IV starts from Chapter 17, which reviews the marketing ways, strategies and applications of English Language Teaching (ELT) programs and products via distance education. Marketing of distance education also have been analyzed. The two Turkish cases are presented by Usun and Komur. In Chapter 18, presented by Mirici, marketing of the distance foreign language education is dealt with focusing on three main target groups as: learners, teachers; and teacher trainers.

Three Specific Case Studies From Turkey

In Section V three specific case studies from Turkey are presented: in health care field (Chapter 19), Open Education Faculty in Turkey (Chapter 20) and Anadolu University's Distance education services (Chapter 21).

Argan and Argan, in Chapter 19, provides an overview and discussion of virtual communities in health care. In this Chapter the state of marketing implications in virtual communities in the health care sector is reviewed. The case study method was used.

Gokdag, in Chapter 20, is trying to explain the teaching-learning services that organized by private sector for Open Education Faculty students in Turkey. Anadolu University Open Education faculty is described. The students' reasons for attending to private course are analysed.

Kumtepe, Ataizi, Caliskan, Uztug and Aydin, in Chapter 21, present the Anadolu University, the Anadolu University's distance education services. Authors describe the marketing strategy at Anadolu University. The list of e-certificate programs is presented.

Lessons Learned and Literature Review

In Section VI, Chapter 22, Demiray explores the role and scope of marketing and its applications in the field of open and distance education. Demiray finalizes the book with the literature review on Marketing in online education.

The book overviews the distance education in Turkey, USA, Africa, UAE, Spain, UK and India. The book provides very useful information about marketing strategies in online education.

Specialists working in this field could apply the marketing for better introduction of their courses online. Suggestion for coming books: to prepare the list of Abbreviations and indexing for whole book, which will help reader to find the explanations easily.

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Economics of Distance and Online Learning Theory, Practice and Research By William Bramble & Santosh Panda

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ABOUT THE BOOK

This book provides a comprehensive overview of the organizational models of distance and online learning from an international perspective and from the point of view of economic planning, costing and management decision-making.

The book points to directions for the further research and development in this area, and will promote further understanding and critical reflection on the part of administrators, practitioners and researchers of distance education.

The experiences and perspectives in distance education in the US are balanced with those in other areas of the world.

Table of Contents
Preface

SECTION ONE: INTRODUCTION

Chapter 1: Organizational and Cost Structures for Distance and Online Learning, William J. Bramble and Santosh Panda

SECTION TWO: PLANNING AND MANAGEMENT

Chapter 2: Changing Distance Education and

Changing Organizational Issues, D. Randy Garrison and Heather Kanuka

Chapter 3: Online Learning and the University, Chris Curran

THE HANDBOOK OF BLENDED LEARNING: Global Perspectives, Local Designs

Curtis J. Bonk (ed.) and Charles R. Graham (ed.), Jay Cross (Foreword), Micheal G. Moore Foreword) ISBN: 978-0-7879-7758-0 Publisher: John Wiley & Sons, Inc. Pfeiffer Pages: 624 March 2006.

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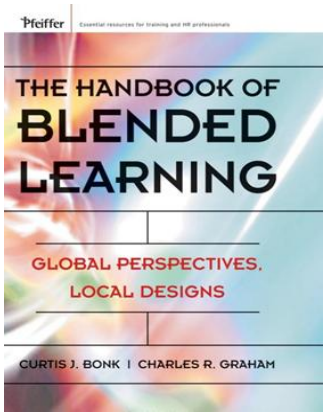

Blended learning or blended e-learning sounds like a confusing term at first since it is relatively a new term for today's instructors. However, Moore reports that it can be traced as far back as the 1920s which was called "supervised correspondence study". For clarification of the term "blended learning" and informing the instructors about its common practices worldwide, the book provides readers a comprehensive resource about blended learning. It aims to raise awareness of adopting BL from institutional perspectives of many chapter authors from Australia, Korea, Malaysia, the UK, Canada and South Africa who are distinguished people mostly in instructional technology era. With this book, I guess the editors aim at both showing the big picture at macro level and present micro level examples which provide details of blended learning applications among their strengths and weaknesses. As introduced in the book, one of the editors Curtis J. Bonk, a former corporate controller and CPA, is now professor of educational psychology as well as instructional systems technology at Indiana University; the other editor Charles R. Graham is an assistant professor of instructional psychology and technology at Brigham Young University with a focus on technology-mediated teaching and learning.

The book is of eight parts including 39 chapters besides two forewords. Therefore, the organization of this review is considered to take a holistic view for each parts while emphasizing the original and/or impressive aspects that chapter authors provided and it concludes with a summary paragraph including personal comments about the book and the blended learning itself.

The book starts with discussing the importance of blended learning (BL). The authors implied that in 2003, ASTD (American Society for Training and Development) identified blended learning as one of the top ten trends to emerge in the knowledge industry. Also, the prediction of increase in the use of BL for delivering training at companies and higher education institutes is common worldwide.

Originally, this book contains two forewords. In the first forewords section written by Jay Cross who is introduced as a thought leader in learning technology, performance improvement and organizational culture and coined the terms e-learning and work flow learning. He reflected the corporate training aspects of the book and implied that he could not imagine unblended learning since it is foolish to think that delegating the entire training role to the computer can work. He reported that BL is not something like 40 percent online, 60 percent classroom or face to face instruction. As Ellen Wagner described "..BL models provide essential methodological scaffolding needed to effectively combine face-to-face instruction and arrays of content objects..". The ingredients of the blend must accommodate learning needs and instructional design should be considered accordingly. BL is claimed to be a stepping-stone for the future which reminds us to look at learning challenges from many directions.

The second forewords section is written by Micheal G. Moore, introduces as a piooner in distance education and founder and editor of the American Journal of Distance Education. The editors mention that this section is written from a higher education perspective. Micheal G. Moore states that BL is a long-neglected idea and the advantages of combining classroom and home or work place are being discovered by educators and policy makers recently.

In Part One: Introduction to Blended Learning, Charles R. Graham introduces readers with emergence of blended learning, and defines blended learning as "BL systems combine face-to-face instruction with computer mediated instruction". He claims that; generally, people chose BL for three reasons:

- **improved pedagogy,**
- **increased access and flexibility,**
- **increased cost-effectiveness.**

He presents existing blended learning models using by many sectors and organizations and discusses the importance and usefulness of BL for now and in the future. Elliott Masie also provides reasons for creating blended learning and claims that it is an imperative which reflects the blended nature of our world and learning process. On the other hand, Jennifer Hofmann mentions the chronology of learning delivery technologies before identifying the need for a blended solution. She presents many headings starting with "How do we..?" which provide practical solutions and explanations for the instructors who wish to try blended learning designs but uncertain about it. Ellen D. Wagner welcomes the readers to "a world of occasionally connected, fully interactive digital experiences" and asks them "what instructional paradigm could be better suited for exploiting the potential of education unplugged than blended learning". She discusses the importance of interaction comprehensively and reviewed various models of instructional interaction.

In Part Two: Corporate blended learning models and perspectives, the authors provide blended learning models and frameworks of six major corporations which are IBM, Sun Microsystems, Microsoft, Avaya, Cisco, and Oracle and discusses many issues regarding various BL experiences. In Part Three: Higher education blended learning models and perspectives, higher education (HE) models for BL from universities in New Zealand, Wales and UK are presented besides BL examples and institutional strategies from WebCT officers.

Barbara Ross and Karen Gage imply that although hybrid (or blended) courses do not fit easily into HE administration structure and require rethinking of the ways for teaching, they provide the best way to improve student learning outcomes. Examples from New Zealand (the Massey University and the Open Polytechnic), Wales (The University of Glamorgan), USA (California-National University in teacher education, In Part Four: For-profit and online university perspectives, the University of Phoenix, Capella University and Jones International University) provide different histories and programs of BL practices in local designs besides its impact on students with various demographics. Several practices and cases are able to stimulate higher educators to review the aspects and discuss issues in applying BL models in their own institutions.

In Part Five: Cases of blended learning in higher education from around the world, specific case situations from twelve different countries which are Japan, Korea, China, Malaysia, Singapore, Australia, Canada, the United States, Mexico, Israel, the United Kingdom and South Africa are highlighted. These cases can provide readers a great understanding for implementation of BL according to diverse learning needs and cultures. However, I have also expected to see cases from Anadolu University in Turkey, since it is the fourth largest university in the world by enrollment and the national provider of open education since 1982 with over 1.500.000 enrollments (AU, 2009). This valuable contribution could have helped to complete the global picture of distance and blended learning practices in higher education.

In Part Six: Multinational blended learning perspectives, the integration of learning technologies into Europe's education besides BL in Africa and the Middle East and in the context of international development are highlighted. In Part Seven: Workplace, on demand, and authentic learning, emerging trends in workplace, work flow and on-demand learning are provided. The opportunities for mentoring and apprenticeship in learning in the workplace are discussed.

In Part Eight: Future trends in blended learning, emerging technologies such as simulations, mobile technologies, augmented reality and reusable content objects which will affect BL opportunities are presented. The chapters in this part, provide interesting examples regarding BL in military training, mixed and virtual reality technologies and future trends besides predictions.

Finally, the authors concluded that BL can provide adults numerous learning options "without ever showing up on campus" and they mention that most of what has been introduced as learning options in this book would outdate in ten or twenty years. When considering the fact that different economic conditions and situations of developed and developing countries and digital divide, I disagree with this notion. Those learning options might be outdated for some developed countries while still in-use for the others.

In conclusion, "The Handbook of Blended Learning: Global Perspectives, Local Designs" is a quite comprehensive reference with the contributions of prominent experts in instructional technology and a helpful handbook for those who wish to learn more about blended learning, BL design models and example case studies of worldwide implementations in local higher education institutes and also in organizations.

As one of our studies' about the pre-service teachers' views on blended learning (Ateş, Turalı and Güneyce, 2008) indicates, traditional face to face learning environment is indispensable for social aspect of teaching and learning however Internet based asynchronous technologies such as e-mail, forum, listserv, blog, e-portfolio, webfolio..etc. can provide learners more flexible and interactive learning environments independent from time and space. Also, synchronous technologies such as chat, videoconferencing, instant messaging tools. etc. can enhance interaction between instructors and learners which may provide motivation for learning.

Thus, it is rationale to take advantage of both Internet and other technologies such as mobile devices, simulations and face to face learning. The point is that as Lefoe and Hedberg suggest in Chapter Twenty-Three, "time needs to be provided for knowledge generation and planning activities, not just the servicing of students' immediate learning needs." Personally, I am convinced that the future requires blended learning since with the infusion of various technologies and communication modes into our lives; we are surrounded by a blending world which will be more blended in the future. And surely, this effects and will keep on affecting the way we teach and learn now and in the future.

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BRIDGING THE KNOWLEDGE DIVIDE
Educational Technology for Development

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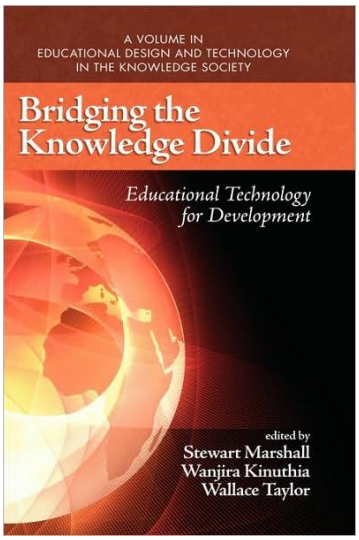

The concept of a knowledge divide is used to describe the gap in living conditions between those who can find, manage and process information or knowledge, and those who are impaired in this, for one reason or another. In the 21st century, the emergence of the knowledge society becomes pervasive hence the information and ICT systems that support knowledge are very important.

This book discusses how educational technology can be used to transform education and assist developing communities to close the knowledge divide. Its broader audience is anyone who is interested in educational technology for development. In the book you can find best practices and case studies especially from countries in Africa.

The book is edited by Stewart Marshall, Wanjira Kinuthia, Wallace Taylor. Professor Stewart Marshall, PhD, is the director of the Academic Division of the University of the West Indies Open Campus (UWIOC) and holds the UNESCO Chair in Educational Technologies.

Dr. Wanjira Kinuthia is assistant professor of Learning Technologies at Georgia State University. She works as an instructional designer in higher education and business and industry for several years. Professor Wallace Taylor, PhD, is a founding director of The Information Society Institute (TISI), a non-profit academic, research, and policy development organization based in South Africa.

The book is consisted of 433 pages (+xxxv) covering 24 articles divided into four sections and provides information about flexible learning for empowerment, managing and communicating knowledge, flexible delivery in higher education and preparing teacher using flexible approaches.

Topics covered in the book are as follows:

Flexible Education and Community Development, Flexible Learning for Community Economic Development, Contribution of the IDE in Promoting Gender Equality and in Empowering Women in Swaziland, A Virtual Wheel of Fortune?: Enablers and Constraints of ICTs in Higher Education in South Africa, Delivering Distance Education for the Civil Service in the UK: The University of Chester's Foundation for Government Program, Knowledge Management Strategies for Distance Education, The Effectiveness of Mobile Short Messaging Service (SMS) Technologies in the Support of Selected Distance Education Students of Makerere University, Uganda, The Impact of Video Conferencing on Distance Education Courses: A University of Namibia Case Study, Open Resources for Open Learning in Developing Countries: Deciphering Trends for Policies, Quality, and Standards Considerations, Freedom, Innovation, and Equity with Open Source Software, Copyright Issues and their Impact on Flexible Education in Africa, University Education for National Development: Makerere University's Dual Mode Experience, Considerations for Higher Education Distance Education Policy for Development: A Case of the University of Botswana,

Blended Online and Face-to-Face Learning: A Pilot Project in the Faculty of Education, Eduardo Mondlane University, Evaluating the Impact of CABLE: A Cognitive Apprenticeship-Based Learning Environment, From Distance Learning to E-learning in Central and Northern Mozambique, A Framework for the Delivery of Cross-Regional Distance Education to Professionals in Developing Countries, Distance Learning—Challenges and Opportunities for Postgraduate Medical Education: A Case Study of Postgraduate Training in Family Medicine Using Distance Learning at the University of the West Indies (2001–2006), Pre-service Teacher Preparation and Effective eLearning, Distance Teacher Training in Rwanda: Comparing the Costs, Beckoning E-Learners through Exploration of Computer Technology, Educational Technology and Flexible Education in Nigeria: Meeting the Need for Effective Teacher Education, Fostering Digital Literacy of Primary Teachers in Community Schools: The BET K–12 Experience in Salvador de Bahia.

First section of the book consists of five chapters. It deals with some of the key issues in flexible education as a means of bridging the knowledge divide, empowering groups and building cohesive communities. In first two chapters, identifications and of critical factors and constraints to the delivery of flexible education for community development is provided. Paradigm shift to more open and flexible learning is discussed. In next chapter, a distance education application as case study is given in promoting gender equality and in empowering women in Swaziland. Fourth chapter presents a regional perspective on how academic staff and students are enabled and constrained by access to variety of resources. Finally, some of the lessons learned from Delivering Distance Education for the Civil Service in the UK: The University of Chester's Foundation for Government Program are given.

Second section, consists of six chapters, and covers topics of knowledge management, specific technologies that can be used in the facilitation of flexible learning and open educational resources as an issue of access to knowledge.

First of all it provides an introduction to the concept of knowledge management and emphasizes its importance in distance education. Then more effective usage of mobile technologies is mentioned and a Uganda example is given.

Furthermore, the impact of video conferencing on distance education is mentioned from University of Naibia's point of view. On the other hand open access movement and open educational resource (OER) is reviewed in the light of knowledge society trend. Finally copyright issue and their impact on flexible education are discussed.

Third chapter looks at some of the methods adopted by universities often in difficult circumstance. Examples from dual mode universities Makerere University in Uganda and University of Botswana, Eduardo Mondlane Univeristy, Catholic University of Mozambique are given and discussed. Within this context challenges and solutions are mentioned. Furthermore some framework for distance education planning and programming are offered. Results of evaluation study on the impact of a Cognitive Apprenticeship-Based Learning Environment are discussed.

Flexibility of teacher education is an important issue for flexible education of students. Because of this, final section, which consists of five chapters, focuses on flexible learning and teaching into teacher preparation. Case studies and thoughts from China, Rwanda, Nigeria, Salvador de Bahia are shared.

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