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Dear TOJDE Readers,

Welcome to Volume 17, Number 3 of TOJDE,

There are 10 articles and 2 book reviews in July 2016 issue. 27 authors write these articles from 7 different countries, which are Ghana, India, Iran, Malaysia, Pakistan, Turkey and USA.

LEARNER’S SATISFACTION: A CASE STUDY ON IGNOU’S ENGINEERING DIPLOMA PROGRAMME is the 1st article. Dr. Neelam VENKATESHWARLU and Dr. Ashish AGARWAL are the authors of this article. This article emphasizes that distance learners face some problems in the distance courses. On the other hand, learner satisfaction is one of the important issues in distance education field. The article describes the importance of Engineering programs offered through Open and Distance Learning for working technicians (ITI certificate holders) and working technical supervisors (Engineering Diploma holders) in IGNOU. Moreover, the learner satisfaction is analyzed for students of engineering diploma programs in IGNOU.

The 2nd article is written by Dr. Glenn J. FORTE, Dr. David R. SCHWANDT, Dr. Susan SWAYZE, Dr. Joan BUTLER and Dr. Merrill ASHCRAFT. The title of this article is DISTANCE EDUCATION IN THE U.S.: A PARADOX. According to the authors distance education class offerings at U.S. universities and colleges have been increasing at a rate of approximately 10% or more per year over the last several years. The question of this study is based on Transactional Distance Theory. Is there a significant difference between student evaluations of the Teaching Methods and Styles of distance education and face-to-face classes as measured on a student completed class and instructor survey, examined through the lens of Moore’s Transactional Distance Theory constructs of student autonomy, dialogue and structure? Based on the results of the study, authors have concluded that psychological and pedagogical separation, or transactional distance between student and instructor is reduced when the distance education course structure encourages and requires increased dialogue and interaction.

The 3rd article is written by Dr. Jesus TRESPALACIOS and Dr. Ross PERKINS. The title of the article is SENSE OF COMMUNITY, PERCEIVED LEARNING, AND ACHIEVEMENT RELATIONSHIPS IN AN ONLINE GRADUATE COURSE. The authors examine students’ perceptions of sense of community and learning, as well as academic achievement, using grades obtained from a final project and participation in asynchronous discussion forums. Findings indicate a significant correlation between perceived learning and the sense of community connectedness subscale.

Dr. Firat SARSAR and Dr. Tarik KISLA write the 4th article. EMOTIONAL PRESENCE IN ONLINE LEARNING SCALE: A SCALE DEVELOPMENT STUDY is the title of this article. In this study, there is a design to develop a survey to assist online instructors to understand students’ emotional statement in online learning environment. The study highlights, there
are many ways to interact between instructors and students in online learning environment. The survey serves (i) to provide evidences about students’ emotional presence, (ii) to assists online instructors for determining efficient ways of communication, and (iii) to helps instructors for recognizing their students’ communicational skills.

INFORMATION NEEDS OF DISTANCE LEARNERS: A CASE OF WINNEBA STUDY CENTRE, UNIVERSITY OF EDUCATION, WINNEBA, GHANA is the title of the 5th article. Agatha Gifty LARSON and Michael OWUSU-ACHEAW are the authors of this article. The study focuses on the information needs of distance learners of the Winneba Study Centre of the University of Education, Winneba. The main objective was to investigate the information needs of this group of students who live far away from their host institution and have minimal interaction with their tutors. The findings indicate that it is recommended tutors should endeavor to give assignments that would require the use of libraries, efforts should also be made by library management in partnership with distance education administrators to run mobile library services, instruction on library use, negotiate for space in public and school libraries to keep library materials for use by the learners and also provide instruction on how to access and use both print and electronic resources in libraries.

The 6th article’s title is E-MENTORING FOR PROFESSIONAL DEVELOPMENT OF PRE-SERVICE TEACHERS: A CASE STUDY. Dr. Mehmet KAHRAMAN and Dr. Abdullah KUZU are the authors of this article. This study focuses on supporting the professional development of information technologies pre-service teachers with e-mentoring approach. The e-mentoring program is conducted in four basic phases; preparation, matching, interaction and finalizing. The data were collected via researcher journals, semi-structured interviews held with the participants, focus-group interviews and reflection reports written at the end of the program. This study underlines that the e-mentoring program had positive influence on their professional development besides the formal education given to the participants. The e-mentoring program helped students, academicians and graduates share their knowledge and experience with each other and develop their social networks.

Dr. Zari Sadat SEYYEDREZAIE, Dr. Behzad GHONSOOLY, Dr. Hesamoddin SHAHRIARI and Dr. Azar Hosseini FATemi are the authors of the 7th article. A MIXED METHODS ANALYSIS OF THE EFFECT OF GOOGLE DOCS ENVIRONMENT ON EFL LEARNERS’ WRITING PERFORMANCE AND CAUSAL ATTRIBUTIONS FOR SUCCESS AND FAILURE is the title of the article. The study investigates the effect of writing process in Google Docs environment on Iranian EFL learners’ writing performance. In the end of the study, it is revealed that students generally show positive attitude towards the implication of Google Docs as a factor leading to success in their writing performance.

The 8th article, titled WHICH ASPECTS OF THE ENGLISH LANGUAGE DO DISTANCE LEARNERS FIND DIFFICULT?, is written by Dr. George Boon Sai TEOH, Dr. Agnes Liau Wei LIN and Kathy BELAJA. This study reports the findings of a research carried out on distance learners at the School of Distance Education, University Sains Malaysia. In the case of the School of Distance Education learners, their level of proficiency prior to this course, their commitment and hours spent on studying the English language may have affected their perceptions and achievement in the course.
Dr. Munazza AMBREEN, Ambreen HAQDAD and Wajid A. SALEEM are the authors of the 9th article. FOSTERING SELF-REGULATED LEARNING THROUGH DISTANCE EDUCATION: A CASE STUDY OF M.PHIL SECONDARY TEACHER EDUCATION PROGRAM OF ALLAMA IQBAL OPEN UNIVERSITY is the title of this article. This study focuses to explore up to what extent distance education system is successful in fostering self-regulated learning among learners at higher level. Data analysis revealed that teachers are very concerned about development of the skills required to regulate one’s own learning among students of MS/ M.Phil program.

The 10th article is written by Meltem KUSCU and Dr. Hasan ARSLAN. The title of the article is VIRTUAL LEADERSHIP AT DISTANCE EDUCATION TEAMS. The purpose of this study is to examine virtual leadership perception of distance learning teams. Three trivets are in question for distance learning teams. The first one is the academicians lecturing, the second one is the students and the third one is coordinator and technical support team. The study highlights that there are different perspectives about virtual leader and leadership at distance education teams.

There are two book reviews in this 3rd issue of 2016. TECHNOLOGY INTEGRATION AND HIGH POSSIBILITY CLASSROOMS: BUILDING FROM TPACK is the title of the 1st book. The author of this book is Jane HUNTER. The reviewer is Dr. Nejdet KARADAG.

Other book’s title is INTELLIGENT AND ADAPTIVE EDUCATIONAL-LEARNING SYSTEMS: ACHIEVEMENTS AND TRENDS. This is editorial book and Alejandro PENA-AYALA is the editor. Gamze TUNA is the reviewer of this editorial book.

Hope to meet you in the next issue of TOJDE.

Cordially,

Dr. T. Volkan YUZER
Editor-in-Chief
LEARNER’S SATISFACTION: 
A CASE STUDY ON IGNOU’S ENGINEERING DIPLOMA PROGRAM

Dr. Neelam VENKATESHWARLU
Mechanical Engineering School Engineering and Technology
Indira Gandhi National Open University, New Delhi, India

Dr. Ashish AGARWAL
Mechanical Engineering School Engineering and Technology
Indira Gandhi National Open University, New Delhi, India

ABSTRACT

Open and Distance Learning (ODL) system is different from conventional education system. ODL system imparts education through multiple media and techniques to equalize the classroom education. Unlike the conventional system, the distant learners (students, adults, employed persons, etc.) may face some problems during their course of study. In this paper authors discuss various problems faced by the ODL learners and propose some good practices to enhance the learner’s satisfaction level. The paper further describes the importance of Engineering programs offered through ODL for working technicians (ITI certificate holders) and working technical supervisors (Engineering Diploma holders). It also talks about the career opportunities and promotion aspects after the completion of their respective programs.

Keywords: Open and Distance Learning, Working People Education, Engineering Education

INTRODUCTION

Education is a lifelong learning process to gain the knowledge and skills in competitive sense. ODL system is a good opportunity for lifelong learning process. Because in the formal education system, compulsory component of attending classes deprived the working people, who are interested in lifelong learning. ODL system tries to reach the doorsteps of the learners, by devising various means of learning tools and techniques, such as study materials, study centers with world class facilities including libraries, internet, etc. ODL system’s most important characteristic is its flexibility of learning that is learner can learn at home, at office, during travel, at leisure times and the weekend classes conducted at study centers. There is a more flexibility in ODL system, for example, if any learner joins in any program of 3 years duration (i.e Diploma in Mechanical Engineering) and due to unavoidable circumstances, he was forced to discontinue the program for 2 years, and later he wants to join then after permission he will be given a chance to complete his Diploma in ODL system. With all these types of flexibilities the ODL system motivates the learners to complete their Diplomas and Degrees in maximum duration time which are lacking in conventional system of education. ODL system plays vital role in providing educational opportunities for the employed learners as well as to the learners who wants to enhance their educational knowledge and capabilities up to date. In India and abroad the importance of ODL system is...
increasing due to its diversified and flexible learning methodologies. ODL system has more flexibility in adapting technologies, methods for efficient conduction of knowledge transformation. For example adaption of ICT’s in ODL played a pivotal role in providing Audio/Video program, virtual and augmented laboratories etc; to the learners at extensive support. Now a days MOOC’s is providing various courses through on online learning methodology, where students can enroll for a program or for a course, listen the classes, write the assignments, exams and get the results and certification through online only. This is nothing but new technology mediated learning of ODL system. In the present paper an attempt has been made to analyze the level of satisfaction among students enrolled in Diploma in Mechanical Engineering (DME).

LITERATURE REVIEW

From the literature it has been observed that there is a tremendous scope for distance education in engineering and technology provided designing and development of industry need based programs and maintaining quality in delivery of educational services or support services in terms of open and distance learning. According to Rama Chandra & Moni Sahay (2008) maintaining quality of education through the distance mode is always a challenge. Quality of design, quality of services, quality of ICTs in ODL and quality of technologies utilized in distance education plays a vital role in imparting quality education to the employed learners, adult learners and lifelong learners. According to Anil K. Dimri (2015) ODL mode of learning is highly suitable to the diversified socio-economic, geo-physical and ethno-cultural condition of India to provide opportunities to bureaucrats, technocrats, corporate professionals to enhance their skill and knowledge while working. S.Raja Rao (2008) expressed his views that the different types of media and communication technologies play a vital role in democratizing education, reaching more people and places while maintaining the quality. Here the distance education providers should take initiatives to improve the quality of distance education continuously by giving more importance to research in distance education as well as training and developing the teachers in updated ICTs utilized for distance education.

There are different approaches to improve the quality in education, distance education and technical education. Roma Mitra Debnath & Ravi Shankar (2012) suggested two major approaches to quality improvement, such as quality assurance and quality enhancement. Once the distance educators implement these two approaches in their education system continuously, the learner satisfaction level will be increased. The student satisfaction is one of the challenges for the distance educators. To understand the students satisfaction in the distance education programs, there are different methodologies available such as questionnaire feedback and interview methodologies. Highest student satisfaction can be achieved through initiatives taken by the educational universities, educational institutes and government policies on educational quality improvement. Recently Jharkhand State Chief Minister Hemant Soren (2014) has taken initiatives to improving the quality of education in the state. The research conducted by Romadhani Ardi et al. (2012) utilized “students satisfaction” as the predictor of successful TQM implementation in higher educational institutes in Indonesia. Santosh Panda (2011) expressed his views about the present change taking place on the ODL system due to fast developments of ICT’s and its implementation.

Francis Glasgow (2011) conducted need assessment studies in ODL system to know the demand of the various programs and courses, which are essential for self-development, community development, skill development, management development etc; for employed people or adult learners. This study suggested that technical and vocational courses are very much essential for community development. Sushmita Mitra (2010) discussed about model
of partnership in ODL education and its impact on the open schooling performance in India. It was also suggested that partnerships in ODL system will have numerous advantages like workloads can be shared, avoiding duplication work and cost savings and effective new technology implementation etc. Therefore partnerships in ODL education system should be encouraged and strictly implemented. A Mishra et al (2010) conducted a research study on evaluation of students support services in ODL education system and suggested that increased face to face interaction of counselors, regional center staff and study center staff with students may satisfy the learners and also enhances the passing percentage. According to Agolla J. Evans et al; (2011), many higher learning institutions have embraced the quality as the only panacea to student’s satisfaction. Murugan Krishnan Pillai (2011) discussed about quality development in learner support services to enhance the student satisfaction and suggested that the ODL institutions should identify their quality indicators and best practice them to improve the quality of support services, which will enhance the student’s satisfaction level and quality standards of ODL institutions.

In this context this paper is also focusing on student satisfaction as one of the following objectives:

- to provide awareness about successful conduction of engineering programs through distance education
- to provide awareness about importance of ODL engineering programs for employed persons or adult learners
- to understand about promotional aspects of employed engineering learners
- to understand about the need of the engineering programs through distance mode
- to provide information about learners satisfaction after successful completion of Diploma in Mechanical Engineering (DME) program from SOET, IGNOU and
- to provide awareness about ODL learners problems which they face after joining ODL engineering programs etc.

CASE STUDY ON DIPLOMA IN MECHANICAL ENGINEERING AT IGNOU

IGNOU has planned employment related Diploma Engineering Programs for Technical ITI holders and are employed in Manufacturing Sector. In Engineering and Technology areas, the University has planned to develop employment related continuing education programs aiming at increased job potential and economic advantage for the learner. Towards this, the University has identified the manpower training needs of employment sector and has launched three years Diploma in Mechanical Engineering. After successfully completion of the program, the learner will get Diploma in Mechanical Engineering (DME). The DME program is designed to provide training and continuing education and professional knowledge appropriate for upgrading the ITI level manpower engaged in managing Mechanical/Production/Automobiles tasks.

In concrete terms, the University proposes to identify specific areas in Engineering and Technology for program development in consultation with employing agencies at central and state levels including Governmental, Public and Private Sector organizations and Professional Bodies, so as to reflect in the curriculum design, the functional education and training needs of the targeted learner group at the workplace. Subsequently, the University visualizes that these and such other industrial organizations and professional Bodies and their professionals and experts will participate with the University in the tasks of preparation of instructional material for such functional curriculum as also in its implementation, thereby making the program preparation and implementation endeavor a participative outcome between the University and industry. The methodology of instruction in this University is different from that of the conventional universities. The Open University system is more learner-oriented,
as the student is an active participant in the teaching and learning process. Most of the instruction is imparted through distance rather than face-to-face communication. The university follows a multimedia approach for instruction. It comprises:

- **Written Material:** The written material for both theory and practical components of the program is supplied to the students in batches of blocks for every course booklet comprises 3 to 5 units.
- **Audio-Visual Material Aids:** The learning package contains audio and video cassettes which have been produced by the University for better clarification and enhancement of understanding of the course material given to the student. A video program is normally of 25-30 minutes duration. The audio tapes are run and video cassettes are screened at the study centers during the hours of the counseling session.
- **Counseling Sessions:** Normally counseling sessions are held as per a schedule drawn beforehand by the Coordinator. They are held on week-ends, that is to say, Saturday and Sunday of the week. There will be a minimum of 10 counseling sessions of 2 hours duration for each course (20 hours for each course on an average) of the program devoted to theoretical aspects.
- **Teleconferencing and EDUSAT Lecturers:** Some of the lecturers will be telecast through teleconferences and some will be telecast through interactive EDUSAT lecture sessions.

The Study Centre will organize counseling sessions for all courses of study. Here, students can take help from the counselors in their study. The counselor will also organize sessions on audio-video programs.

**Importance of Engineering Programs through ODL**

Since 1994, SOET, IGNOU was running its Engineering Degree and Diploma programs successfully by identifying recognized engineering colleges as its study centers for conducting theory and practical classes during weekends and holidays. More than 3000 learners (working people) have successfully completed their degrees and diplomas in engineering. And most of these learners have got their promotions and increments in their existing industries. This is one of the life satisfaction components for any individual who achieves in his life and who gets full satisfaction.

First of all one should understand about the intake eligibility of learners. The eligibility for Diploma in Mechanical engineering programs is 10th + ITI pass in any trade and should be employed (working people only). As the working people regularly remain in touch with construction of buildings, working on machines, instruments, measurements, quality aspects, tools, techniques, methods, improvements, drawings, materials etc., they can easily understand the concepts, theories, practical problems and various techniques to solve the problems. It is also very advantageous that the employed persons will show much interest in completing their courses, because of the rewards they get in terms of promotions and increments. Also, another advantage with ODL system for the employed persons is that, new employment to the learners is not needed, because they are already working people.

Distance education universities and institutes have their own world class infrastructural facilities such as university campus, regional centers, evaluation centers and study centers, etc. For Diploma in Mechanical Engineering program the study centers are Govt. & Private Polytechnics, where the theory and practical classes will be conducted during holidays and weekends.
Opportunities and Learning Management System in ODL

Employed people, who want to improve their educational qualifications, ODL system is the most viable alternative method of study. If the working people complete any diploma in engineering, they will get rewards in terms of increments and promotions in their existing jobs. Therefore the working people get satisfied and those who satisfied will work more enthusiastically which leads to productivity improvement and management satisfaction. In this way, the ODL system provides the better opportunities for those who want to improve their educational qualifications while working. The opportunities and learning management system in ODL is shown in Figure 1. The ODL systems never compromise with quality of education.

There is a positive correlation between educational qualifications up-gradation and gaining promotions in the existing employment. The relationship between educational qualification improvement and gaining promotion is as shown in Figure 2 and Figure 3.

Figure: 1
ODL Learning Management System

Figure: 2
Comparison of Promotions in the Industries for ITI holders (Technicians)
As shown in above Figures 2 and 3, you may observe Figure A and Figure B the differences in promotional aspects in the industries encourage the working people to join in ODL universities to improve their educational qualifications. Please keenly observe the differences, in figure 2, an ITI holder will get his promotion after 10 years without any extra qualification (figure 2A), but an ITI holder will get his promotion after 4 years only with an extra diploma qualification through ODL mode (figure 2B).

Problems Faced by the ODL Learners

The ODL learners (students) may face so many problems when they join in ODL learning program due to various reasons. The following main problems have been observed since three years from the students of Diploma in Mechanical Engineering (DME) program of IGNOU.

- Irregularity in receipts of study materials for some courses
- Delay in conduction of practical courses at some study centers
- Non-conduction of project viva at some regional centers
- Delay in up-dating assignment and practical marks in the grade cards

ODL educators should concentrate on services required by the learners, so that the problems are minimized and the satisfaction level is maximized. In order to know about the satisfaction level of the students of DME program of IGNOU, a feedback analysis is conducted. A small questionnaire has been developed and sent to the students of DME program. The population size of DME students is first batch of throughout India and the population is around 500 students and sample size taken is taken randomly 100 students.

The feedback analysis on questionnaire is as follows:

- To gauge the level of satisfaction among the students of DME, an interview was conducted with the passed out students. On the basis of their feedback, following hypotheses have been formulated:
Hypotheses Formulation
The hypotheses for the present study are formulated as follows:
H1: Student’s satisfaction level is influenced by support services provided by ODL University
H2: The timely communication received from the program coordinator affects the level of student satisfaction.

Questionnaire Analysis
A research questionnaire was developed to know the opinion of the Diploma in Mechanical Engineering (DME) students of the SOET, IGNOU about performance of DME program and its post study effectiveness on the student career advancement in promotions and other financial benefits gained. The questionnaire was developed on a five-point Likert scale. The students were asked to just tick mark on the five-point Likert scale. The 100 number of questionnaires have been sent to the students of DME program and all these students were selected on the basis of their academic performance. About 58 filled-in questionnaire feedbacks are received and accepted because they have filled all the questions with care. Few students have even proposed some more extra suggestions also. The analysis of the questionnaire is as follows:

Quality of Study Materials Provided by IGNOU
The study materials designed for Diploma in Mechanical Engineering (DME) was rated by the students as excellent (67%), Very good (17%) and Good (12%) which implies that study materials have achieved the higher student satisfaction level. The percentages are shown in Figure 4.

![Figure 4: Students Rating about DME Materials](image)

Timely Counseling of Theory Classes Conducted at Study Center
The timely counseling of theory classes conducted at study center for Diploma in Mechanical Engineering (DME) was rated by the students as excellent (62%), Very good (25%) and Good (13%) which implies our counseling classes achieved the higher student satisfaction level. The percentages are shown in Figure 5.
Timely Counseling of Practical Classes Conducted at Study Center

The timely counseling of practical classes conducted at study centers for Diploma in Mechanical Engineering (DME) was rated by the students as excellent (58%), Very good (12%), Good (17%) and Adequate (13%). That means our practical counseling classes conduction is achieved the higher student satisfaction level. The percentages are shown in Figure 6.

Communication from DME Program Coordinator

The communication from Diploma in Mechanical Engineering (DME) program coordinator was rated by the students as excellent (75%), Very good (9%), Good (8%), Adequate (4%) and Bad (4%) which implies communication from DME program coordinator has achieved the highest student satisfaction level. The percentages are shown in Figure 7.
Here it is observed that the effective communication received from the program coordinator is very well and the student satisfaction level is very high. Therefore the Hypothesis, H2: There is a positive correlation between the effective communication received from the program coordinator and student satisfaction level is accepted.

**Chance of Getting Promotion after Completing DME Program**
The chance of getting promotion after completing Diploma in Mechanical Engineering (DME) program was rated by the students as excellent (42%), Very good (46%) and Good (12%) which means the DME program is having high value in the industry and society. The percentages are shown in Figure 8.

**Chance of Getting Increment after Obtaining DME Certificate**
The chance of getting increment after completing Diploma in Mechanical Engineering (DME) program was rated by the students as Excellent (25%), Very good (33%), Good (25%) and Adequate (17%) that means the DME program is having high value in the industry and gives weightage in their promotion policy. The percentages are shown in Figure 9.
Overall Perception of Students about the DME Program

Most of the students have given positive feedback on DME program of SOET, IGNOU. Only one student out of 58 gave a negative feedback. With these feedbacks, it is observed that our DME program performance is very good. The ODL system is not only helps the learners to upgrade their knowledge but also opens up promotions and increments in the companies where they are working. Most of them also want to pursue further studies if any from SOET, IGNOU.

Significance of this Study

With this study it is understood that the demand for engineering diploma program through distance mode is high. By designing and developing need based engineering diploma programs through ODL mode is very much helpful to the students as well industry. The paper also observes that most of the learners are highly motivated for learning while earning. The study indicates high satisfaction rate of learners about delivery of this program to gain full-fledged knowledge in the specific field. The students after getting this engineering diploma program certificate are highly motivated through gaining promotions in their jobs. This is an excellent recognition for IGNOU engineering diploma program. IGNOU engineering diploma students are getting promotions through participating in their competitive examinations. This is because of excellent design of course curriculum and innovative approaches in reaching and teaching the employed learners. By analyzing feedback results, it is understood that IGNOU’s innovative approach in designing, developing and delivery of program is excellent and student’s satisfaction level is delightful. Through this study it is understood that adopting innovative approaches in understanding the needs of industry and the learners is very much important for the ODL system. Therefore it is very much essential to understand the needs of the industry and learners, while designing and developing need based engineering diploma programs through ODL mode.

CONCLUSION

In the present paper, learner satisfaction is analyzed for IGNOU students of engineering diploma programs. Various problems faced by the students have been identified by conducting interview with selected students. A student who encounters any problem as
above immediately contacts the program coordinator on phone. With the received phone calls only, it is observed that the above problems are categorized as main problems; if these problems are solved most of the students expressed their satisfaction. Therefore it is observed that the ODL educators should plan their activities in totality to satisfy the learners. The following activities are to be carried out in a systematic manner to the satisfaction of the learners in order to make the programs successful.

- Proper designing of program structure and course curriculum
- Study materials should be developed in advance
- Closely controlling and maintenance of study center activities
- Timely up-dating assignment marks and term end marks in the grade cards
- Proper and effective communication between headquarters and regional centers
- Effective communication between RC’s, SED, MPDD, RSD and SRD in advance in respect of launching of a program, program modules and methodologies
- In order to reduce the communication gap the orientation program should be conducted in all the RCs in scheduled manner
- Regular feedback from students about the following:
  - Timely receipts of materials
  - Regularity in counseling classes
  - Timely dispatch of assignment marks to SED etc.

In this paper authors carried out research on the need of the educational qualification enhancement, problems faced by the ODL learners (employed students) and the satisfaction after getting the higher education through ODL mode of education. In this paper authors gather the data through questionnaire and analyzed using the Microsoft excel. It is observed that there is a higher demand for educational enhancement from the technical employed people for gaining updated knowledge as well as higher level promotions in the existing jobs. It is understood that working technicians (ITI certificate holders) and working junior engineers (Technical Diploma holders) are highly satisfied with the quality of curriculum and services provided by ODL universities and institutes who were offering technical ODL programs. It is concluded that there will be higher demand in the future for the technical education through ODL mode of education for working people provided that the quality curriculum and support services are developed by the universities.

**BIODATA and CONTACT ADDRESSES of the AUTHORS**

**Dr. Neelam VENKATESHWARLU**  
Associate Professor Mechanical Engineering  
School Engineering and Technology Indira Gandhi National Open University  
New Delhi India has more than twenty years of experience in teaching. His area of interest is Production Management, Total Quality Management, Education Technology etc. His research papers appeared in National and International Journals.

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Dr. Neelam VENKATESHWARLU  
Mechanical Engineering  
School Engineering and Technology  
Indira Gandhi National Open University New Delhi India  
Phone: +91-11-29572918  
Mobile: +91-8826655368  
Email: nvenkateshwarlu2008@ignou.ac.in
Dr. Ashish AGARWAL  Associate Professor Mechanical Engineering School Engineering and Technology Indira Gandhi National Open University New Delhi India has more than twenty years of experience in teaching. His area of interest is Production Management, Supply Chain Management, Total Quality Management, Education Technology and Project Management. His research papers appeared in European Journal of Operational Research, Industrial Marketing Management, International Journal of Productivity and Performance Measurement etc.

Dr. Ashish AGARWAL  
Mechanical Engineering School Engineering and Technology  
Indira Gandhi National Open University New Delhi India  
Phone: +91-11-29572922  
Mobile: +91-9868225927  
Email: ashisha@ignou.ac.in

REFERENCES


DISTANCE EDUCATION IN THE U.S.: A PARADOX

Dr. Glenn J. FORTE
The College of Social & Behavioral Science,
Wilmington University, New Castle, DE, USA

Dr. David R. SCHWANDT
The Graduate School of Education & Human Development
The George Washington University, Ashburn, VA, USA

Dr. Susan SWAYZE
Graduate School of Education & Human Development
The George Washington University, Washington, DC, USA

Dr. Joan BUTLER
Clinical Research Department
The George Washington University, Washington, DC, USA

Dr. Merrill ASHCRAFT
Strategic Statistics Consulting
Chesapeake, VA, USA

ABSTRACT

Over the last several years distance education (DE) class offerings at U.S. universities and colleges have been increasing at a rate of approximately 10% or more per year. While the effectiveness of DE classes vis-à-vis that of face-to-face (F2F) classes has been sufficiently documented, there are few studies that compare student evaluations of the two class delivery systems. Therefore, we sought to answer the question, is there a significant difference between student evaluations of the Teaching Methods and Styles (TM&S) of DE and F2F classes as measured on a student completed class and instructor survey, examined through the lens of Moore’s Transactional Distance Theory (TDT) constructs of student autonomy, dialogue and structure. Moore maintains that Transactional Distance (TD) is a psychological and pedagogical separation of student and instructor, as well as a geographical one. The twenty TM&S questions included in the survey data for 765 classes offered from September 6, 2011 to December 19, 2013 were collected and analyzed for classes identified as SOC 101 Introduction to Sociology through SOC 340 Applied Research in the Behavioral Sciences that are offered by the College of Social and Behavioral Sciences at a Mid-Atlantic Open University. A t-test analysis of variance was conducted and analyzed. The results of the study indicate that 16 of the 20 TM&S questions returned statistically significant results, 3 of 4 for student autonomy, 8 of 10 for dialogue and 5 of 6 for structure. Three of the TDT construct dialogue/interaction questions and two of the TDT construct structure questions returned medium effect size magnitudes. Three of the TM&S questions associated with the TDT construct autonomy returned statistically significant results with low effect size magnitudes. Based on the results of the study, we have concluded that psychological and pedagogical separation, or TD between student and instructor is reduced when the DE course structure encourages and requires increased dialogue and interaction.

Keywords: Distance education, distance education paradox, transactional distance and transactional distance theory
INTRODUCTION

In a study conducted by Babson Research for the Sloan Consortium, Allen and Seaman (2013) reported that over the last 10 years of research Chief Academic Officers (CAOs) report a less than overwhelming claim for the validity and legitimacy on DE by their respective faculty. As Table 1 below indicates, only about 30% of those CAOs indicated their faculty’s agreement that DE is valid and legitimate. The rest disagree or are neutral on the question suggesting that a large percentage of faculty have yet to make up their minds with respect to the validity and legitimacy of DE. It may be that many of that group have not been exposed to DE classes and are reluctant to make a judgment. Such numbers have led one to assume that faculty members are having difficulty adapting to and accepting DE. If, as is discussed below, students are already uncomfortable with DE and are quick to drop a DE class when they discover the reality of DE classes and faculty members are uncomfortable with DE classes, a problem for the successful growth of DE exists. Yet, in spite of these issues, the number of students enrolled in DE classes increased in 2011 and 2012, albeit at a slower rate than previous years. The Sloan Consortium study estimates that the 2012’s growth rate for DE enrollments of “9.3 percent is the lowest recorded in this report series” (Allen & Seaman, 2013, p. 4).

Table: 1
Faculty Assessment of Legitimacy of Online Education: (Allen & Seaman, 2013, p. 29)

<table>
<thead>
<tr>
<th></th>
<th>Fall 2002</th>
<th>Fall 2004</th>
<th>Fall 2005</th>
<th>Fall 2006</th>
<th>Fall 2007</th>
<th>Fall 2009</th>
<th>Fall 2011</th>
<th>Fall 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>27.6%</td>
<td>30.4%</td>
<td>27.6%</td>
<td>32.9%</td>
<td>33.5%</td>
<td>30.9%</td>
<td>32.0%</td>
<td>30.2%</td>
</tr>
<tr>
<td>Neutral</td>
<td>59.3%</td>
<td>57.8%</td>
<td>56.1%</td>
<td>51.9%</td>
<td>51.9%</td>
<td>51.8%</td>
<td>56.5%</td>
<td>57.2%</td>
</tr>
<tr>
<td>Disagree</td>
<td>7.4%</td>
<td>10.3%</td>
<td>14.7%</td>
<td>11.0%</td>
<td>14.6%</td>
<td>17.3%</td>
<td>11.4%</td>
<td>12.6%</td>
</tr>
</tbody>
</table>

Student dissatisfaction with DE classes, as evidenced by the widening attrition gap between DE classes and traditional F2F classes is becoming an even bigger problem as DE class offerings increase (Patrick, 2009). Moreover, in the most recent Babson Survey Research Study (Allen & Seaman, 2014), over 40% of CAOs report that it is more difficult to retain DE students for 2013 and that percentage has increased significantly since 2004 (see Figure 1).
Retaining Students is a Greater Problem for Online Courses than it is for Face-To-Face Courses (Allen & Seaman, 2014, p. 18).

Given the incredible development of DE classes throughout the U.S. and the very weak retention numbers cited by Chief Academic Officers, a paradox exists. While there are a number of studies that compare DE classes to F2F classes with similar disappointing results (see Bernard et al., 2004), the current study examined the difference based on students’ survey ratings of the teaching methods and styles (TM&S) for both DE and F2F classes.

**MOORE’S TRANSACTIONAL DISTANCE THEORY**

In the early 1970’s, Michael G. Moore (1997, 2010) focused on a revised explanation of DE. His revision holds that DE is not only a geographical separation but a psychological and pedagogical separation as well. The theory is known as Transactional Distance Theory (TDT). It is based on Dewey’s concept of transactional education (See Dewey & Bently, 1949). They viewed knowledge and its acquisition as occurring in a natural system in which each member of that system is dependent on other members. Therefore, no one stands alone in his or her acquisition of knowledge.

TDT maintains that the greater the transactional (psychological) distance, the less effective the online class. Consequently, Moore’s purpose has been to reduce the psychological or transactional distance of DE courses. Moore considered three constructs necessary for TDT. They are student autonomy, dialogue/interaction and course structure. He has hypothesized that “as dialogue increases, transactional distance decreases [and] as structure increases, transactional distance increases” (Moore, 2010, p. 19). Moreover, the need for student autonomy “increases as transactional distance increases” (p. 21). In the end, dialogue appears to be the key variable, as the degree of transactional distance is ultimately dependent upon the level of dialogue, which causes some to consider TDT a tautology and not a viable theory (Gorsky & Caspi, 2005b).
Like others (Connolly et al., 2007; Dron et al., 2004; Fulford & Zhang, 1993; Holmberg, 2003; Lear, Isernhagen, LaCost, & King, 2009; Salmon & Shephard, 2004; Tsui & Ki, 1996), Gorsky et al. (2004), we have concluded that dialogue is important to student satisfaction (see also Gorsky & Caspi, 2005a). Moreover, they also discovered, as did others (Connolly et al., 2007; Salmon & Shephard, 2004) the importance of the tutor in motivating students to participate in dialogue. Finally, they came to the realization, as did Dron et al. (2004) that in spite of the importance that theorists like Moore (1993) attached to dialogue, the reality is that very often dialogue has been neglected in DE classes.

THE CONCEPTUAL FRAMEWORK

The study considered the TM&S as reported on the student survey through the lens of Moore’s Transactional Distance Theory (TDT) (1973, 1997, 2010, 2012). There are 20 IDEA TM&S variables. Each variable was categorized under one of the constructs of Moore’s TDT (Autonomy, Dialogue & Structure).

The study categorized the 20 TM&S variables from each IDEA survey and Moore’s constructs in the following way.

AUTONOMY: Moore (2012) defined autonomous students as those capable of taking charge of their learning. Table 2 categorizes Moore’s TDT construct with 4 survey TM&S variables.

<table>
<thead>
<tr>
<th>Moore’s TDT Constructs</th>
<th>Survey Teaching Methods &amp; Styles</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTONOMY</td>
<td>Stimulated students to intellectual effort beyond that required by most other courses (IDEA Survey item #8)</td>
</tr>
<tr>
<td></td>
<td>Encouraged students to use multiple resources (IDEA Survey item #9)</td>
</tr>
<tr>
<td></td>
<td>Inspired students to set and achieve goals which really challenged them (IDEA Survey item #15)</td>
</tr>
<tr>
<td></td>
<td>Gave projects, tests or assignments that require original or creative thought (IDEA Survey item #19)</td>
</tr>
</tbody>
</table>

DIALOGUE: Moore described dialogue as a certain kind of interaction between students and instructors that relies on words and images. Table 3 Categorizes Moore’s TDT construct of Dialogue with 10 survey TM&S variables.
Table: 3  
Survey TM&S Categorized with Moore’s TDT Construct Dialogue

<table>
<thead>
<tr>
<th>Moore’s TDT Constructs</th>
<th>Survey Teaching Methods &amp; Styles</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIALOGUE</td>
<td></td>
</tr>
<tr>
<td>Displayed a personal interest in students and their learning (IDEA Survey #1)</td>
<td></td>
</tr>
<tr>
<td>Found ways to help students answer their own questions (IDEA Survey #2)</td>
<td></td>
</tr>
<tr>
<td>Demonstrated the importance and significance of the subject matter (IDEA Survey #4)</td>
<td></td>
</tr>
<tr>
<td>Formed teams or discussion groups to facilitate learning (IDEA Survey #5)</td>
<td></td>
</tr>
<tr>
<td>Explained the reasons for criticisms of students’ academic performance (IDEA Survey #7)</td>
<td></td>
</tr>
<tr>
<td>Introduced stimulating ideas about the subject matter (IDEA Survey #13)</td>
<td></td>
</tr>
<tr>
<td>Asked students to share ideas and experiences with others whose backgrounds and viewpoints differ from their own (IDEA Survey #16)</td>
<td></td>
</tr>
<tr>
<td>Provided timely and frequent feedback on tests, reports, projects, etc. to help students improve (IDEA Survey #17)</td>
<td></td>
</tr>
<tr>
<td>Asked students to help each other understand ideas or concepts (IDEA Survey #18)</td>
<td></td>
</tr>
<tr>
<td>Encouraged student - faculty interaction outside of class (IDEA Survey #20)</td>
<td></td>
</tr>
</tbody>
</table>

Finally, STRUCTURE: Moore (2012, p. 5) has defined structure as “that which expresses the rigidity or flexibility of the course’s educational objectives, teaching strategies, and evaluation methods. Table 4 Categorizes Moore’s TDT construct Structure with 6 IDEA TM&S variables.

Table: 4  
Survey TM&S Categorized with Moore’s TDT Construct Structure

<table>
<thead>
<tr>
<th>Moore’s TDT Constructs</th>
<th>Survey Teaching Methods &amp; Styles</th>
</tr>
</thead>
<tbody>
<tr>
<td>STRUCTURE</td>
<td></td>
</tr>
<tr>
<td>Scheduled course work (class activities, tests, projects) in ways which encouraged students to stay up-to-date in their work (IDEA Survey #3)</td>
<td></td>
</tr>
<tr>
<td>Made it clear how each topic fit into the course (IDEA Survey #6)</td>
<td></td>
</tr>
<tr>
<td>Explained course material clearly and concisely (IDEA Survey #10)</td>
<td></td>
</tr>
<tr>
<td>Related course material to real life situations (IDEA Survey #11)</td>
<td></td>
</tr>
<tr>
<td>Gave tests, projects, etc. that covered the most important points of the course (IDEA Survey #12)</td>
<td></td>
</tr>
<tr>
<td>Involved students in “hands on” projects such as research, case studies, or “real life” activities (IDEA Survey #14)</td>
<td></td>
</tr>
</tbody>
</table>
Figure: 2
The Conceptual Framework
METHODOLOGY AND DATA COLLECTION

An independent samples t-tests was used for the purpose of examining whether a statistically significant difference exists between the TM&S of DE and F2F student ratings at an Open University in the Mid-Atlantic region of the U.S. with respect to student surveys through the lens of Moore’s TDT (see Figure 2) (IDEA, 2013; Moore, 2012). Twenty null hypotheses were stated to correlate with the 20 TM&S questions listed on the student survey for a range of classes beginning with SOC 101 Introduction to Sociology and ending with SOC 340 Applied Research in the Behavioral Sciences offered from September 6, 2011 through December 19, 2013. Student ratings for 765 classes (488 F2F and 277) were evaluated.

The sampling approach was a comprehensive one that included an analysis of all of the completed surveys for the stated courses and dates. This was an Ex Post Facto design (Campbell & Stanley, 1963) as the data was collected prior to this study. The data for each class was separated into DE and F2F categories.

The Instrument
The data for this study was drawn from a commercially available survey instrument that has been used at the study site for twenty-five years. It is a student-centered survey that is designed to obtain the student’s evaluation of both the course he or she has just completed and the instructor responsible for teaching the course (IDEA, 2013). Student evaluations of instructor performance, including this particular instrument, have been shown to be both valid and reliable (Benton & Cashin, 2012; Renaud & Murray, 2005; Theall & Franklin, 2001). There are no identifying factors to any student contained on the instrument. Therefore, all student information was kept confidential and anonymous.

Content Validity
Descriptions of the TDT constructs of autonomy, dialogue and structure and the categorization of the TM&S variables considered consistent with the TDT constructs were sent to a TDT expert, the Senior Survey Research Officer and the Chair of the Behavior Science Department at the study site for their comments for the purpose of testing content validity. The TDT expert did not respond. The senior researcher and the Chair both responded in the affirmative.

Significance and Effect Size
The independent samples t-test was run using IBM SPSS v. 21. P values at the .05 level of significance and effect size magnitudes for each of the 20 survey variables are reported. The effect size magnitude calculations were based on a Cohen’s $d$ statistic of low, medium and high effect size (Field, 2013; Hinkle et al, 2003).
RESULTS

The mean scores for 15 courses offered in 765 classes (277 DE & 488 F2F) of IDEA surveys were analyzed from Fall 2011 to Fall 2013 inclusive. Of the 277 DE classes evaluated, there were 2216 responses for an average of 8 responses per class. Of the 488 F2F classes evaluated, there were 4880 responses for an average of 10 responses per class. A total of 7184 responses were examined in the study. Of the 20 null hypotheses from the IDEA TM&S surveys, 16 had statistically significant results.

The analyses of the results for hypotheses categorized under the TDT construct autonomy (Table 5) indicate that three of the four (HØ_8, HØ_15 & HØ_19) yielded statistically significant results. Those three hypotheses were rejected. All three hypotheses returned Cohen’s $d$ magnitudes of less than .30 indicating small effects. Taking this information into account, there is likelihood that the effect of the particular variable is not substantive. HØ_9 with a p-value greater than .05 was accepted.

<table>
<thead>
<tr>
<th>Table: 5</th>
<th>Independent Samples t-Test Results for TDT Construct Autonomy</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDEA Item #</td>
<td>V ar</td>
</tr>
<tr>
<td>#8</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td>#9</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td>#15</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td>#19</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td>N</td>
</tr>
</tbody>
</table>

The analyses of the results for hypotheses categorized under the TDT construct dialogue (Table 6) indicate that eight of the ten (HØ_1, HØ_2, HØ_4, HØ_5, HØ_13, HØ_17, HØ_18 & HØ_20) yielded statistically significant results. Those eight hypotheses were rejected. Three of the eight statistically significant hypotheses returned medium effect sizes (HØ_1 / $d = .55$, HØ_2 / $d = .52$, & HØ_4 / $d = .45$) indicating a more substantive effect. The remaining five hypotheses returned small effect sizes.
The analyses of the results for hypotheses categorized under the TDT construct structure (Table 7) indicate that five of the six (H03, H06, H010, H011 & H014) yielded statistically significant results. Those five hypotheses were rejected. Two of the five statistically significant hypotheses returned medium effect sizes (H06 / d = .38 & H010 / d = .46) indicating a more substantive effect.
DISCUSSION AND CONCLUSION

While the constructs of dialogue and structure were found to be important in reducing TD in computer mediated DE classes, the construct autonomy returning 3 of 4 statistically significant results with only small effect sizes was found not to paly an important role in reducing TD. As with the mean scores of DE and F2F classes for dialogue, those for structure are similar and skewed to the high end of 5.0, which causes one to consider the differences between student evaluations of F2F and DE classes at the research site to be more of a preference for F2F classes than dissatisfaction with DE classes.

Moore (2010, p. 19) maintained, "as dialogue increases, transactional distance decreases [and] as structure increases, transactional distance increases." We believe the results of this study indicate the opposite. That is, as structure that highlights the importance of student/instructor engagement (dialogue/interaction) increases, TD decreases. With respect to the relationship between structure and dialogue/interaction, one Ph. D. student (Jacki, 2010) blogged that student/instructor engagement (i.e., dialogue/interaction) is necessary for an online course. She references Salmon’s Five Stage Model for online classes. Salmon’s Stage 1 holds for instructors encouraging students to interact in the class. Stage 4 of 5 encourages students to lead the class and keep the interaction ongoing (See Salmon & Shepard, 2004).

PROPOSED MODEL

The focus of the current study has been limited to the Open University in the Mid-Atlantic region and as such is much narrower in scope than what Professor Moore intends. Nevertheless, the results of the current study have encouraged this researcher to pursue even further study of TDT.
as it applies to such situations. Based on the reviewed literature as well as the results of the current study, a proposal for a computer mediated distance education model (CMDEM) is presented in Figure 3. As has been discussed in this paper and has been found by others (Benson & Samarawickrema, 2009; Kanuka, Collett, & Caswell, 2002; Murphy & Cifuentes, 2001; Wikeley & Muschamp, 2004), the results of the current study highlight the magnitude of the TM&S variables categorized in the TDT constructs of dialogue and structure. The CMDEM assumes instructor engagement and relies exclusively on DE courses delivered by way of the Internet using such systems as Blackboard, Web CT, Angel, Moodle among others existing now or in the future.

Figure: 3
Computer Mediated DE Model (CMDEM)
The model includes four (4) concentric rings around the constant (C) which represents the computer with access to the Internet. There is a vertical axis that divides each ring into an east/west orientation. The portion of the rings on the west axis represents “structure” (S); the portion on the east axis represents “dialogue” (D). Each ring is identified by a (-) indicating lesser or a (+) indicating greater or a (+/) indicating some. As an example, both the outermost western rings (representing structure) and outermost eastern rings (representing dialogue) are identified with a (-) indicating less structure/dialogue. Thus, the outermost ring indicates the largest transactional distance gap (TDG), which indicates greater TD. The innermost rings, which are comprised of an eastern half identified as (+) and a western half also identified as (+), represents the smallest TDG indicating less TD. Thus, the CMDEM model theorizes that when DE classes are structured in a way that focuses on the need for dialogue and interaction, TD will decrease. Therefore, as structure increases, so does dialogue/interaction.

BIODATA and CONTACT ADDRESSES of the AUTHORS

Dr. Glenn J. FORTE was formerly the Vice President for Operations for a pharmaceutical packaging firm in the USA. He retired early from that position in 2005 and has turned his attention to higher education. He earned his doctorate from The Executive Leadership Doctoral Program, The Graduate School of Education & Human Development at The George Washington University, Washington, DC. He holds a Masters of Arts degree in Theology and Religious Studies from Villanova University in Villanova, PA, USA and a Bachelors of Arts degree in Liberal Arts from Kutztown State College in Kutztown, PA, USA

Dr. Glenn J. FORTE
Behavioral Science Department
The College of Social & Behavioral Science
Wilmington University, 320 N. DuPont HWY
New Castle, DE, USA. 19720
Phone: +11 484 8808862
Email: glenn.j.forte@wilmu.edu

Prior to his career in higher education Dr. David R. SCHWANDT was the Human Resource Director of the United States of America's General Accounting Office (GAO) in Washington, DC, USA. He is the founder and former director of The Executive Leadership Doctoral Program of The Graduate School of Education & Human Development at The George Washington University. He holds a Ph.D. in Organizational Administration from Wayne State University in Detroit, MI, USA, a Master of Science in Physics from Western Michigan University and a Bachelor of Science in Physics from Eastern Michigan University.

Professor Emeritus, Dr. David R. SCHWANDT
The Graduate School of Education & Human Development
The George Washington University
Enterprise Hall
44983 Knoll Square,
Ashburn, VA 20147: USA.
Phone: 703 9784059
Email: schwandt@gwu.edu
Dr. Susan SWAYZE holds a Ph.D. in Education from the University of California, Los Angeles, CA, USA, an MBA from Duke University, Durham, NC, USA and a Master of Arts in Education from the University of California, Los Angeles, CA, USA. She was a Research Fellow at the Southwest Center for Educational Equity, a Research Scholar in the Afro-American Studies Program for Interdisciplinary Research at the University of California, Los Angeles, LA, USA and an Educational Policy Fellow at the Instituted for Educational Leadership.

Dr. Susan SWAYZE  
Educational Research Department  
Graduate School of Education & Human Development  
The George Washington University, Washington, DC, USA.  
PO Box 1092, Stirling, VA 20167  
Phone: 571 5533773  
Email: swayze@gwu.edu

Dr. Joan BUTLER served as an executive within the pharmaceutical industry, and has held various positions of increasing responsibility in her 30-year tenure. Dr. Butler's passion in industry was being a project manager (PM) leading interdisciplinary teams to develop new technologies to meet patients' unmet medical needs. She was chosen as the industry PM representative loaned to the US Food & Drug Administration to aid the implementation of the team based managed review process' within the Centers for Drugs and Biologics for PDUFA implementation.

Dr. Joan BUTLER  
Clinical Research Department  
The George Washington University  
Washington, DC, USA  
Phone: 202 9944837  
Email: jbutler@gwu.edu

Dr. Merrill ASHCRAFT earned a doctorate from The Executive Leadership Doctoral Program, The Graduate School of Education & Human Development at The George Washington University, Washington, DC. She retired as a Resource Manager from the US Civil Services, Transportation & Environmental Services where she managed annual budgets in excess of $100,000,000. Throughout her career she was considered an agent of change who created innovations that saved millions of dollars. In addition to many other awards and honors, she was named to the US Navy's Public Works Center Hall of Fame for significant cost savings and she was the 2005 Executive Leadership Doctoral Program Cohort 15 recipient of the George Washington University's Executive Leadership Ralph Stone Award for excellence in doctoral studies.

Dr. Merrill ASHCRAFT  
Strategic Statistics Consulting  
Chesapeake, VA, USA  
Phone: 757 4655230  
Email: jmashcraft@verizon.net
REFERENCES


SENSE OF COMMUNITY, PERCEIVED LEARNING,
AND ACHIEVEMENT RELATIONSHIPS
IN AN ONLINE GRADUATE COURSE

Dr. Jesus TRESPALACIOS,
Department of Educational Technology, College of Education,
Boise State University, Boise, USA

Dr. Ross PERKINS
Department of Educational Technology, College of Education
Boise State University, Boise, USA

ABSTRACT

The ubiquity of online programs in higher education requires continued focus on designing instructional environments that improve students’ learning. We examine students’ perceptions of sense of community and learning, as well as academic achievement, using grades obtained from a final project and participation in asynchronous discussion forums. Findings indicate a significant correlation between perceived learning and the sense of community connectedness subscale. Although sense of community is closely associated with interactions, the results did not show a significant relationship between the sense of community and the discussions achievement variable. Implications and challenges in implementing activities to foster sense of community in an online learning environment are discussed.

Keywords: Sense of community, perceived learning, achievement, online learning, asynchronous discussions.

INTRODUCTION

In the United States, 7.1 million higher education students took at least one online course during 2012. This represents a 6.1 % growth rate from the previous year (Allen & Seaman, 2014). Furthermore, in 2012, 62.4% of higher education institutions offered online courses and full programs as compared to 34.5% in 2002 (Allen & Seaman, 2013). The growth of online programs in higher education requires continued attention to the design of instructional environments to improve learning. Among different conceptions of learning, constructivist theories emphasize the creation of knowledge by the learners while they attempt to make sense of their experiences through interactions with the community and the environment (Driscoll, 2005; Harasim, 2012). Among the many factors that may impact the success of online environments, the development of online communities has become an important field of interest, especially in higher education (Bond & Lockee, 2014; Shea, 2006; Snyder, 2009).

Based on collaborative constructivism, Garrison’s (2011) Community of Inquiry theoretical framework (CoI) identified social presence, cognitive presence, and teaching presence as key elements to inform instructional design and create meaningful e-learning experiences (Richardson, et al., 2012). One important factor positively associated with CoI is sense of community (SOC) (Garrison, 2007). In the community psychology field, SOC was defined as
the feeling of belonging to a group, the sense that group members mattered to each other and would meet each other’s needs through their shared commitment to the group (McMillan and Chavis, 1986). “the feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members’ needs will be met through their commitment to be together” (McMillan and Chavis, 1986, p. 9). Extending the concept to an educational setting, Rovai (2002b) defined classroom community as

\[
a feeling that members have of belonging, a feeling that members matter to one another and to the group, that they have duties and obligations to each other and to the school, and that they possess shared expectations that members’ educational needs will be met through their commitment to shared learning goals. One can, therefore, constitutively define classroom community as consisting of two components: feelings of connectedness among community members and commonality of learning expectations and goals. (p. 322)
\]

Many scholars discuss the relevance of building sense of community in online educational environments to improving students’ overall satisfaction with the learning experience (Garrison, 2007, 2011; Moore, 2014; Palloff & Pratt, 2007a, 2007b; Shackelford & Maxwell, 2012; Stepich & Ertmer, 2003). There is evidence that SOC is positively related to other variables such as perceived learning (Liu, Magjuka, Bonk & Lee, 2007; Rovai, 2002b; Shea, 2006; Shea, Li, & Pickett, 2006; Top, 2012), satisfaction (Drouin, 2008; Tsai et al., 2008; Ouzts, 2006), engagement (Young & Bruce, 2011), and achievement (Harvey, Moller, Huett, Godshalk & Downs, 2007; Wighting, Nisvet & Spaulding, 2009). For example, Wighting, Nisvet and Spaulding (2009) found a relationship between the community learning subscale and academic achievement, and between SOC and academic achievement. Specifically in online courses in instructional design, Ertmer and Stepich (2005) found a significant relationship between perceived learning and the learning community subscale, but not between SOC and learning. Thus, as Wighting, Nisvet and Spaulding (2009) concluded, “learning has important social and cognitive dimensions and occurs most effectively when the school provides a positive social environment with a strong sense of community” (p. 64).

**PROMOTING SENSE OF COMMUNITY**

There have been several attempts to identify general recommendations to promote SOC. Palloff and Pratt (2007a) suggested active interaction, collaborative learning, socially constructed meaning, resource sharing, and expressions of support and encouragement. Bielaczyc and Collins (1999) identified three similar strategies that activities should have in order to promote learning communities in the classroom: providing individual development and collaborative construction of knowledge, sharing knowledge and skills among members of the community, and making learning processes visible. Haythornthwaite, Kazmer, Robins, and Shoemaker (2000) also suggested three instructional strategies to promote SOC in distance education: promoting initial bonding, monitoring and supporting interaction and participation, and providing multiple ways of communication.

SOC may rise when students have opportunities to interact with their classmates and instructor (Cameron et al., 2009; Dawson, 2006; Drouin, 2008; Ouzts, 2006; Shen et al., 2008; Swan, 2002). Focusing on the types of learner-learner interactions, Shackelford and Maxwell (2012) found that the following activities, in order of relevance, have an impact on developing students’ SOC in online learning: introductions, collaborative group projects, contributing personal experiences, entire class online discussions, and exchanging resources. Applying guidelines proposed by Palloff and Pratt (1999) to their own online courses on instructional design, Stepich and Ertmer (2003) proposed the following: Instructors should promote
community-building from the very beginning of the course, monitor and support participation throughout the semester, focus instructor participation on providing “weaving” comments, measure perceptions of “community” within the class, and create a technology “boot camp” to ensure that everyone can use the technology easily. In summary, Snyder (2009) stated, “As online learning matures, it is important for both theorists and practitioners to understand how to apply new and emerging educational practices and technologies that foster a sense of community and optimize the online learning environment” (p. 48).

The purpose of this study is to extend the results of previous research analyzing relationships between sense of community, perceived learning, and academic achievement in an online graduate course in instructional design. Using different activities recommended in the literature to promote SOC, this study explores students’ increase in instructional design skills during an eight-week online course, examining how SOC is related to two measures of achievement and students’ perceptions of community. This study addresses the following research questions:

- Is there a relationship among sense of community, perceived learning and achievement in an online graduate course?
- What do students value the most in an online graduate course that promotes learning and sense of community?

**METHODS AND PROCEDURES**

Participants were graduate students enrolled in an online course in instructional design during the 2014 summer session. The course is a required graduate course for obtaining a master’s degree in educational technology. The first author, the instructor of the course, sent invitations to participate in the research study to the 21 students enrolled in this eight-week section. Fifteen students (10 female; 5 male) agreed to participate. Based on their self-introductions at the beginning of the course, students had a broad range of backgrounds, knowledge, and teaching experiences. 6 of them were secondary teachers, 3 students worked as elementary teachers, 5 were educational technology coordinators, and 1 student was a college professor. Assignment submissions, discussion forums, and grading took place in Moodle, the program’s learning management system.

Different collaborative activities were designed to promote SOC and foster learning among students. First, a VoiceThread presentation was created at the beginning of the course to allow students to introduce themselves using video. VoiceThread is a web-based tool that provides a multi-modal asynchronous communication among users including text, voice, and audio. Documentation of the tool’s implementation in a graduate course has been provided elsewhere (Ching & Hsu, 2013). Students were also required to post comments, interacting with at least three classmates who shared something in common with them. As discussed by Rovai (2007), this initial forum was developed with the intention of promoting community building and social presence among students.

Second, four asynchronous text-based discussions were scheduled to support interaction, participation and collaborative construction of meaning. There were two types of activities during discussions. At the beginning of the course, four groups were created to help the instructor lead the asynchronous discussion forums. These leading groups were in charge of preparing a VoiceThread presentation to summarize and discuss assigned content. Presentations were posted in Moodle on Mondays for the whole class to view. Then, during the discussion week, two questions were posted in the forum. Those students who were not in the leading groups were required to answer both questions by Thursday and write follow-up posts by Sunday in response to their classmates’ questions or comments.
Third, an instructional design (ID) project was created to help students apply ID concepts to real-world situations. This project was divided into two sections due at different points in the semester. The first section required students to conduct a needs analysis. In their second report, students revised their analysis, developed their projects, and conducted an evaluation. To provide another venue for learning and supporting each other, a peer review activity was created. For this activity, students were assigned one classmate’s first report and asked to provide feedback using a form (See appendix A). A course evaluation survey asking about the most valuable aspect(s) of the overall learning experience served as a secondary data source, and results were used to support findings.

**Data Collection and Analysis**

Quantitative data were collected using two surveys (perceived SOC and perceived learning) and by analyzing scores for the final ID projects and discussion participation. This was supplemented with qualitative data collected from responses to one item in the course evaluation survey. Although there are several instruments to measure SOC in education, most of them were developed for K-12 environments (Rovai, Wighting, & Lucking, 2004). Thus, for this study SOC was measured using the Classroom Community Scale survey, which focuses on postsecondary students. This survey has 20 Likert-scale questions composed of two subscales of connectedness and learning. Rovai (2002b) explains,

> Connectedness represents the feelings of students regarding their cohesion, spirit, trust, and interdependence. Learning represents the feelings of students regarding the quality of their construction of understanding and the degree to which they share values and beliefs concerning the extent to which their learning goals and expectations are being satisfied. (p. 325)

The instrument has questions such as: "I feel that students in this course care about each other," "I feel reluctant to speak openly," and "I feel uncertain about others in this course." Face validity and construct validity have been established (Rovai, 2002a; Rovai & Baker, 2005).

To measure perceived learning, students completed a self-assessment questionnaire at the beginning and end of the online course in which they rated themselves on 19 instructional design competencies. These competences were composed by the International Board of Standards for Training, Performance and Instruction (IBSTPI, 2014), providing content validity to this instrument (Leedy & Ormrod, 2013). Students were asked to read each competency carefully and choose the option that indicated how they perceived their level of competency from 1 (Weak), 2 (Somewhat weak), 3 (Neither weak or strong), 4 (Somewhat strong), and 5 (Strong). A gain score was calculated to determine changes in the perceived learning of students’ ID competency. This questionnaire measured items such as the ability to “conduct a needs assessment in order to recommend appropriate design solutions and strategies,” “use an instructional design and development process appropriate for a given project,” and “evaluate instructional and non-instructional interventions.” It is important to emphasize that most of these instructional designer competences guide the requirements of the instructional design project required of the students.

Finally, achievement was measured using two different grades. The first was obtained from students’ work on midterm and final project reports. This instructional design project assessed students’ capability in applying instructional design concepts to an instructional design problem, creating different analyses, developing materials, and working with a subject matter expert to evaluate their projects. The second score was taken from an average of the three grades that students received through their participation in three asynchronous discussions. Discussions assessed students’ active participation in the course, measuring students’
understanding of the reading materials related to instructional design. Final grades were assigned based on three rubrics created for these activities (See Appendices B, C and D).

RESULTS AND DISCUSSION

Because of the small sample size, a Shapiro-Wilk test was used to assess the normality of the data (Sen & Srivastava, 1990). Results show the SOC (W=.99, p=.99), SOC_Learning (W=.95, p=.59), and perceived learning (W=.95, p=.53) are approximately normally distributed; but SOC connectedness (W=.82, p=.006), ID project (W=0.72, p=.001), and discussions (W=.67, p=.001) are not.

Perceived Learning
The Cronbach’s alpha coefficients for the pretest and posttest were 0.92 and 0.95 respectively, indicating an acceptable level of reliability (Nunnally & Bernstein, 1994). Results from the self-assessment questionnaire showed a significant increase (t=4.36, p=.001) in students’ perceptions of their instructional design skills from pre- to post-test scores. On average, students’ ratings changed .86 points from 2.94 (neither weak nor strong) to 3.80 (somewhat strong). This result shows that the different activities designed in this course helped students to perceive that they gained knowledge based on instructional design competencies composed by the International Board of Standards for Training, Performance and Instruction (IBSTPI, 2014).

Sense of Community
The Cronbach’s alpha coefficient from the data was .84, indicating an acceptable level of reliability (Nunnally & Bernstein, 1994). Scores of students (Table 1) on the Community Scale averaged 71/100 points suggesting that students “agreed” that they felt SOC in the classroom. Additionally, students also agreed that they felt connected to each other (x=37.00), and the class as a community enabled them to reach their learning goals (x=34.27).

Table: 1
Descriptive statistic of the SOC survey

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean*</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom community</td>
<td>71.27</td>
<td>8.15</td>
</tr>
<tr>
<td>Connectedness subscale</td>
<td>37.00</td>
<td>5.50</td>
</tr>
<tr>
<td>Learning subscale</td>
<td>34.27</td>
<td>4.40</td>
</tr>
</tbody>
</table>

*Total possible classroom community scores range from 0 to 100, with higher scores reflecting a stronger sense of community. Connectedness and learning subscale scores can each range from 0 to 50.
Achievement
Distribution of the grades for discussions and the final project are shown in Table 2. Because both variables are measured in ratio scale but are not normally distributed, a Spearman correlation coefficient was used to address the relationship between the two achievement scores (Vaughan, 2001). The Spearman correlation showed a significant relationship between discussions grades and instructional design project grades ($r_s=.52; p<.05$). These results suggest that although they are two different types of assessments, they both are valid strategies to measure achievement in novice instructional design students.

Table: 2
Grades frequencies

<table>
<thead>
<tr>
<th>Scores</th>
<th>Discussion grades</th>
<th>ID Project grades</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-79</td>
<td>1 (6.7%)</td>
<td>2 (13.3%)</td>
</tr>
<tr>
<td>80-89</td>
<td>1 (6.7%)</td>
<td>3 (20%)</td>
</tr>
<tr>
<td>90-100</td>
<td>13 (86.6)</td>
<td>10 (66.7%)</td>
</tr>
</tbody>
</table>

Relationships among variables
Because the data from the SOC connectedness scale, ID project, and discussions variables did not show a normal distribution in the Shapiro-Wilk’s test, a Spearman rank-order correlation coefficient was used to address the relationship among the variables (Table 3). Results showed that for an alpha level of .05, the correlation between perceived learning and SOC in the connectedness subscale for the 15 students was statistically significant ($r_s=.62; p<.05$). Thus, increases in students’ perceived learning were correlated with increases in students’ feelings of connectedness. This result, a difference from what was found by Ertmer and Stepich (2005), suggests that students with higher gains in perceived learning found it more relevant to feel connected with the group than to learn from the group. Additionally, a correlation between perceived gain and the instructional design project measure of achievement was also statistically significant ($r_s=.53; p<.05$). This result was expected, since the requirements of the instructional design project were guided by the instructional designer competences. Finally, although sense of community is closely associated with interactions (Dawson, 2006; Shen et al., 2008), the results did not show a significant relationship between the sense of community and the discussions achievement variable.

Table: 3
Correlations among variables

<table>
<thead>
<tr>
<th></th>
<th>Perceived learning</th>
<th>Discussions</th>
<th>ID Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC</td>
<td>.45</td>
<td>.18</td>
<td>.17</td>
</tr>
<tr>
<td>SOC-Connectedness</td>
<td>.62*</td>
<td>.32</td>
<td>.38</td>
</tr>
<tr>
<td>SOC-Learning</td>
<td>.24</td>
<td>-.30</td>
<td>.10</td>
</tr>
</tbody>
</table>

* Significant at the .05 level
In the course evaluation survey, students were asked the following question: *Which aspects of this course were most valuable to your overall learning experience?* Using deductive coding to focus on the “key variables that the researcher brings to the study” (Miles, Huberman & Saldaña, 2014, p. 81), students’ responses were analyzed based on perceived learning, achievement (ID project and discussions) and sense of community to observe the relationships between them (Table 4). Additionally, the criteria of selection for these categories were extended to “latent content” (Berg, 2008) where participants’ responses are interpreted. In this way, the frequency of each category observing both the manifest and the latent content is reported. Within a message, if a participant wrote two sentences with the same meaning, it was counted as one. In addition, some responses could be classified in different categories, so each appearance was counted as one for each category. A complete student’s response was used as the unit of coding.

### Table: 4
**Deductive coding of the course most valuable aspects**

<table>
<thead>
<tr>
<th>Variables (n=17)</th>
<th>Sample Responses</th>
<th>Percentage of students mentioning this aspect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived knowledge</td>
<td>I have a working knowledge of what ID is.</td>
<td>6 (30%)</td>
</tr>
<tr>
<td>Achievement-Discussions</td>
<td>Discussion questions related to ID process.</td>
<td>5 (25%)</td>
</tr>
<tr>
<td>Achievement-ID Project</td>
<td>The Instructional Design Project</td>
<td>4 (20%)</td>
</tr>
<tr>
<td>Sense of Community</td>
<td>Dr. T was always willing to reach out to support me. He was very flexible and took personal situations into consideration.</td>
<td>4 (20%)</td>
</tr>
<tr>
<td>Others</td>
<td>None</td>
<td>1 (5%)</td>
</tr>
</tbody>
</table>

Overall, ninety-five percent of student’s responses were classified in any of the categories. After analyzing the responses, the most frequently mentioned aspect (30%) is perceived learning. Students highlighted the learning they obtained as the most important aspect of the course. Looking at the relationship among the variables, one student commented that “The discussion groups were very valuable in processing the course material.” Similarly, another student stated that the most valuable experience in the course was "The leading group Voicethread group discussion. This allowed students to work together, help each other, and feel a sense of accomplishment.” As such, participants especially appreciated interacting with peers to work on the different learning activities. Thus, results from the SOC survey and students’ comments support the use of collaborative activities such as leading groups and discussions to help students to build SOC in the group.

**CONCLUSIONS AND IMPLICATIONS**

The use of different activities to promote SOC (Haythornthwaite, et al., 2000; Palloff and Pratt, 2007a; Rovai, 2007) is well documented. In this study, collaborative activities were designed to promote SOC among students. First, an introductory activity was created where students introduced themselves and interacted with their classmates. Second, leading groups were created to develop a presentation summarizing specific content from the course and to help lead a one-week discussion. Third, four whole-class discussion forums were developed to discuss relevant ID concepts. Finally, students participated in a peer-review activity providing feedback on one classmate’s instructional design project.
The results of this study suggest that different activities designed for this online instructional design graduate course are associated with students’ perceived learning and a positive sense of community. Students’ comments from the course evaluation about the aspects of this course which were most valuable to their overall learning experience helped us to confirm that the activities were beneficial for them. Besides significant correlations between perceived learning and sense of connectedness, and between perceived learning and grades from the final project, results did not show significant correlations between the two achievement measures and SOC. In a similar study conducted on students enrolled in instructional design courses, Ertmer and Stepich (2005) used bulletin board postings and students’ case analysis as activities to measure students’ achievement. Their results also suggested a lack of any significant relationship between these activities and SOC. We echo their conclusion that additional research should be conducted using other type of activities to measure learning and/or achievement.

Because of the rather limited sample size and specific learning contexts and tasks, findings in this study should be interpreted with caution. Since individual characteristics appear to relate to differences in perceived SOC (Drouin & Vartanian, 2010), future research should replicate these type of questions in online courses with different learners, such as undergraduates from different fields, in order to corroborate or contradict findings related to SOC. Future research could also incorporate interviews with some of the participants to provide insights into how they value each one of the activities designed in this course. Configuration of the different activities could be modified as well. For example, discussion forums were one-week long and students received full credit when they wrote at least four posts. Longer periods of time and an undetermined amount of postings required may increase the quantity and the quality of postings (Gilbert & Dabbagh, 2005). Additionally, although VoiceThread is an excellent tool to motivate interactions and social presence, this Web 2.0 tool needs to be improved to allow extended threaded conversations (Borup, West & Graham, 2012).

The results have implications for instructors who teach online, especially for those looking for activities regarding how to promote SOC. As part of the goal of increasing teaching presence (Shea, Li, Pickett, 2006; Shea, Li, Swan & Pickett, 2005), instructors have the responsibility to design and organize e-learning environments to facilitate collaborative communities of inquiry (Richardson, et al., 2012). Different types of activities, like the ones proposed in this study, provide examples that may help instructors to elicit sense of community and learning among students in their own online courses. Furthermore, instructors in the instructional design field may also be interested in how activities such as instructional design projects, peer-review activities, and asynchronous discussions may help students to improve achievement and their perceived learning.

BIODATA and CONTACT ADDRESSES of the AUTHORS

Jesús TRESPALACIOS is an assistant professor in the Educational Technology department at Boise State University, where he teaches online graduate courses on instructional design and research methods. As part of his work designing instructional environments, he is currently working on the implementation of case-based instruction in distance education. Additionally, he is interested in the use of emergent technologies such as VoiceThread to improve students’ sense of community in online learning environments. He earned his PhD in Instructional Design and Technology from Virginia Polytechnic Institute and State University (Virginia Tech).
Ross PERKINS is an associate professor in the Department of Educational Technology at Boise State University. He is the program coordinator of three of the department’s graduate degree programs (M.S.E.T., Ed.S., and Ed.D.). He teaches online graduate courses in instructional design, evaluation, and emerging technologies. His main area of research interest is in the diffusion of innovations, particularly as it applies to the communication, adoption, and evaluation of educational technologies in K20 education. Perkins earned his Ph.D. in Curriculum and Instruction (emphasis on Instructional Technology) from Virginia Polytechnic Institute and State University (Virginia Tech).

REFERENCES


Appendix A: Peer Feedback Form

Report #1 Formative Assessment:
Please, read carefully your classmate’s ID project and provide detailed and thoughtful feedback on each one of the sections to help your classmate to improve his/her ID project. Make sure your comments describe the strengths of the project and details where the project can be improved based on our readings (Larson & Lockee’s textbook) and the information on the ID Project Outline document.

Part 1. Topic
- Goal statement:
  The goal is expressed in clear, unambiguous terms; it is succinct and not too broad.
  Comments:
- Audience description:
  The audience (learners) is clearly described. Comments:

Part 2. Analysis Report
- Gather data on needs, resources, and constraints:
- Needs assessment survey and other documentation: Includes both a description of the survey questionnaire and the actual questions. Describe here any other documentation you used to verify the needs. Comments:
- Needs assessment data: Describes the learners’ needs with a rich level of detail based on results of the analysis survey. Comments:
- Learner needs and characteristics
  Describes the characteristics of the learners with a rich level of detail. Comments:
- Learning context description
  Describes the features of the learning context with a rich level of detail. Comments:
- Context analysis
  Describes the features of the transfer context with a rich level of detail. Comments:
- Content analysis (Flow diagram)
  Highly detailed, organized chart that shows very finite description of breakdown of tasks related to the learning goal and objectives. Comments:

Overall Review
Make any additional comments about the first report and provide specific suggestions and recommendations to improve the quality and clarity of this instructional design project. Comments:
## Appendix B: Midterm Report Rubric

<table>
<thead>
<tr>
<th>Items</th>
<th>Exceed expectation</th>
<th>Meet expectation</th>
<th>Below expectation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal statement (10%)</td>
<td>The goal is expressed in very clear and unambiguous terms; it is succinct and describes a realistic and focused project.</td>
<td>The goal is expressed in clear and unambiguous terms; it is succinct and describes a realistic and focused project.</td>
<td>The goal is unclear and the project is too broad in scope.</td>
</tr>
<tr>
<td>Audience description (10%)</td>
<td>The audience (learners) is clearly described; it contains two or three sentences.</td>
<td>The audience (learners) is clearly described; it contains two or three sentences.</td>
<td>The audience (learners) is unclearly described.</td>
</tr>
<tr>
<td>Needs assessment survey (15%)</td>
<td>Includes both a very clear description of the survey questionnaire and the actual questions. Survey has at least 15-20 questions, and the questions are thoughtfully designed to meet the needs of the project. Includes a description of how the survey was conducted and how many learners received/filled out surveys.</td>
<td>Includes both a description of the survey questionnaire and the actual 15-20 questions. Survey has at least 15-20 questions, and the questions meet the needs of the project. Includes a description of how the survey was conducted and how many learners received/filled out surveys.</td>
<td>Description of the survey is unclear, survey has less than 15 question, and/or actual survey questions were not provided. If provided, the survey questions do not seem relevant to the project. No information about how the survey was conducted.</td>
</tr>
<tr>
<td>Needs assessment data (15%)</td>
<td>Describes the learners' needs in a narrative format with a rich level of detail based on results of the analysis survey. It includes at least one relevant graph.</td>
<td>Describes the learners' needs in a narrative format with a good level of detail based on results of the analysis survey. It includes at least one relevant graph.</td>
<td>Cursory analysis of the learners' needs and it is not presented in a narrative format. No graphs were included.</td>
</tr>
<tr>
<td>Learner needs and characteristics (15%)</td>
<td>Describes learners’ characteristics with a rich level of detail. Description includes learner demographics and prior skills. It includes at least one relevant graph.</td>
<td>Describes learners’ characteristics with a good level of detail. Description includes learner demographics and prior skills. It includes at least one relevant graph.</td>
<td>Cursory description of learners’ characteristics. No graphs were included.</td>
</tr>
<tr>
<td>Learning context (15%)</td>
<td>Describes the features of the learning context with a rich level of detail. Examines the context from a critical perspective.</td>
<td>Describes the features of the learning context with a good level of detail. Examines the context from a critical perspective.</td>
<td>Cursory description of the learning context.</td>
</tr>
<tr>
<td>Performance context (10%)</td>
<td>Describes the features of the transfer context with a rich level of detail, addressing how students will use what they have learned outside the classroom</td>
<td>Describes the features of the transfer context with a good level of detail, addressing how students will use what they have learned outside the classroom</td>
<td>Cursory description of the performance context.</td>
</tr>
<tr>
<td>--------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>Content analysis-Flow diagram (10%)</td>
<td>Highly detailed and organized chart that shows a very finite description of breakdown of tasks related to the learning goal and objectives</td>
<td>Detailed and organized chart that shows a finite description of breakdown of tasks related to the learning goal and objectives</td>
<td>Unclear chart with missing detailed steps that makes it difficult to understand.</td>
</tr>
</tbody>
</table>
Appendix C: Final Report Rubric

<table>
<thead>
<tr>
<th>Items</th>
<th>Exceed expectation</th>
<th>Meet expectation</th>
<th>Below expectation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Updated report #1 (10%)</strong></td>
<td>All suggested changes in the feedback have been very well addressed and all changes improve the overall quality of the instructional design document</td>
<td>All suggested changes in the feedback have been addressed and changes improve the overall quality of the instructional design document</td>
<td>Some of the suggested changes in the feedback have been addressed</td>
</tr>
<tr>
<td><strong>Rationale (10%)</strong></td>
<td>A very well written, detailed explanation of the need for the project. It identifies needs, describes overall scaffolding strategy and pedagogical approach. Each one of these descriptions explains why it can be classified as such, and contains good detail and adherence to text without being wordy.</td>
<td>A well-written explanation of the need for the project. It identifies needs, describes overall scaffolding strategy and pedagogical approach. Each one of these descriptions explains why it can be classified as such.</td>
<td>Limited information about the need the project meets. It does not describing clearly overall scaffolding strategy, pedagogical approach, and why it can be classified as such. It contains mechanical errors.</td>
</tr>
<tr>
<td><strong>Learning objectives (5%)</strong></td>
<td>A comprehensive set of objectives and sub-objectives that are numbered and very detailed about the instructional outcomes. Objectives are well written in a clear, unambiguous manner including conditions, behavior, and criteria.</td>
<td>A comprehensive set of objectives and sub-objectives that are numbered and detailed about the instructional outcomes. Objectives are written in a clear, unambiguous manner.</td>
<td>List of objectives is very short or very long, lacking in detail, and does not include sub-objectives.</td>
</tr>
<tr>
<td><strong>Matrix of objectives, Bloom’s taxonomy, and assessments (5%)</strong></td>
<td>Table is clearly filled out with proper identification of taxonomy level, scaffolding strategy, and assessment types.</td>
<td>Table is filled out with proper identification of taxonomy level, scaffolding strategy, and assessment types.</td>
<td>Table provided is not filled out with proper identification of taxonomy level, scaffolding strategy, and assessment types.</td>
</tr>
<tr>
<td><strong>ARCS table (5%)</strong></td>
<td>Chart clearly identifies the motivational strategies to be used for each of the four areas with a rich level of detail.</td>
<td>Chart identifies the motivational strategies to be used for each of the four areas.</td>
<td>Chart does not identify clearly the motivational strategies to be used for each of the four areas.</td>
</tr>
<tr>
<td>Instructor guide (10%)</td>
<td>It is very detailed and makes flow of instruction very clear following the Instructor Guide Outline. If a flowchart is provided, it is very clear and makes good use of color, and logical flow.</td>
<td>It is very detailed and makes flow of instruction clear following the Instructor Guide Outline. If a flowchart is provided, it is clear and makes good use of color, and logical flow.</td>
<td>It does not contain enough details and makes flow of instruction unclear. If a flowchart is provided, it is not very clear.</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Learner Content: Learning materials (10%)</td>
<td>Materials are very well developed (if not in final state, close to it), amount of material is sufficient to support stated goals/objectives, and materials are professional in appearance. Outside resources are cited correctly in a reference page.</td>
<td>Materials are well developed (if not in final state, close to it), amount of material is sufficient to support stated goals/objectives, and materials are professional in appearance. Outside resources are cited correctly.</td>
<td>Materials are not well developed, amount of material is not sufficient to support goals/objectives, and materials are not professional in appearance. Outside resources aren’t cited correctly.</td>
</tr>
<tr>
<td>Learner Content: Formative and/or Summative Assessment (10%)</td>
<td>Formative and/or summative assessments &quot;fit&quot; the type of learning identified and instructional strategies proposed. If adapted, they are well documented.</td>
<td>Formative and/or summative assessments &quot;fit&quot; the type of learning identified and instructional strategies proposed. If adapted, they are well documented.</td>
<td>Formative and/or summative assessments do not &quot;fit&quot; the type of learning identified and instructional strategies proposed. Materials are not documented.</td>
</tr>
<tr>
<td>Evaluation plan (10%)</td>
<td>A comprehensive plan to evaluate the instructional design project using Kirkpatrick’s model is clearly described. Each one of the four levels includes key questions you would want answered at each level, who would be involved, possible measurement instruments, and any additional information that helps to describe your evaluation plans.</td>
<td>A plan to evaluate the instructional design project using Kirkpatrick’s model is described. Each one of the four levels includes key questions you would want answered at each level, who would be involved, possible measurement instruments, and any additional information that helps to describe your evaluation plans.</td>
<td>A plan to evaluate the instructional design project using Kirkpatrick’s model is not clearly described. Not all four levels include key questions that would be answered at each level, who would be involved, and possible measurement instruments.</td>
</tr>
<tr>
<td>Subject Matter Expert (SME) (5%)</td>
<td>Clearly indicates who has served as the SME identifying with rich level of detail his/her expertise in the project content</td>
<td>Clearly indicates who has served as the SME identifying his/her expertise in the project content</td>
<td>SME is described but not named and/or it is not clear his/her expertise in the project content.</td>
</tr>
<tr>
<td>Evaluation survey/rubric (5%)</td>
<td>A SME evaluation rubric or survey is included to properly evaluate the materials created. Questions are well-designed to obtain a thorough evaluation. If it is a survey, yes/no questions are avoided to obtain more detailed responses.</td>
<td>A SME evaluation rubric or survey is included to properly evaluate the materials created. Questions are well-designed to obtain a thorough evaluation. If it is a survey, yes/no questions are avoided to obtain more detailed responses.</td>
<td>A SME evaluation rubric or survey is included but it doesn’t evaluate properly the materials created. If it is a survey, yes/no questions were included.</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Expert review report (5%)</td>
<td>Clear and detailed presentation of SME’s evaluation of the materials that summarizes the most important points. It is written in narrative form and does not exceed one page.</td>
<td>Clear presentation of SME’s evaluation of the materials that summarizes the most important points. It is written in narrative form and does not exceed one page.</td>
<td>Report is vague and/or short, and does not include a clear presentation in a narrative form of the SME’s evaluation.</td>
</tr>
<tr>
<td>Comments on suggestions (10%)</td>
<td>Carefully dissects any feedback/constructive criticism from SME and addresses in detail how the concerns would be addressed in future iterations of the instructional materials; does not exceed one page.</td>
<td>Carefully dissects any feedback/constructive criticism from SME and addresses how the concerns would be addressed in future iterations of the instructional materials; does not exceed one page.</td>
<td>Cursory analysis on how the concerns would be addressed in future iterations of the instructional materials.</td>
</tr>
</tbody>
</table>
## Appendix D: Asynchronous Discussion Rubric

<table>
<thead>
<tr>
<th>Items</th>
<th>Exceed expectation (2)</th>
<th>Meet Expectation (1)</th>
<th>Below Expectation (0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of initial posts (20%)</td>
<td>The initial posts are well-written and answers the discussion question(s) thoughtfully addressing all aspects of the question.</td>
<td>The initial posts are well-written and answers the discussion question(s) but lacks to fully address all aspects of the questions.</td>
<td>No initial posts are made or the initial posts contains superficial thought and preparation and does not address all aspects of the questions.</td>
</tr>
<tr>
<td>Quality of follow-up posts (20%)</td>
<td>Follow-up posts answer completely classmates' question(s) to your initial posts and offer useful suggestions and new perspectives on classmates' initial posts for further development of the discussion.</td>
<td>Follow-up posts answer classmates' question(s) and some of the comments offer useful suggestions and new perspectives for further development of the work.</td>
<td>Most of the follow-up comments are shallow contributions to the discussion (e.g., great job!) or not helpful for further development of the work.</td>
</tr>
<tr>
<td>Content contribution (20%)</td>
<td>Posts a factually correct, reflective, and substantive contribution that advances discussion.</td>
<td>Posts information that is factually correct but lacks full development of concept or thought.</td>
<td>Posts information off is off the topic or irrelevant and does not add substantive information to the discussion.</td>
</tr>
<tr>
<td>References and support (20%)</td>
<td>Posts contain references to the literature, readings, or personal experience to support students' answers.</td>
<td>Posts incorporate some references from literature and personal experience.</td>
<td>Includes no references or supporting experience.</td>
</tr>
<tr>
<td>Clarity and mechanics (20%)</td>
<td>Contributes to discussion with clear, concise comments formatted in an easy-to-read style free of grammatical or spelling errors.</td>
<td>Contributes valuable information to the discussion with minor clarity or mechanics errors.</td>
<td>Post unorganized or rude content that contains multiple errors.</td>
</tr>
</tbody>
</table>
EMOTIONAL PRESENCE IN ONLINE LEARNING SCALE: 
A SCALE DEVELOPMENT STUDY

Dr. Firat SARSAR
Department of Computer Education and Instructional Technologies 
College of Education, Ege University, Izmir, Turkey

Dr. Tarik KISLA
Department of Computer Education and Instructional Technologies 
College of Education, Ege University, Izmir, Turkey

ABSTRACT

Although emotions are not a new topic in learning environments, the emerging technologies have changed not only the type of learning environments but also the perspectives of emotions in learning environments. This study designed to develop a survey to assist online instructors to understand students’ emotional statement in online learning environment. This survey aimed for online instructors to understand what or how their students’ can reflect their feelings and also whether they are able to transfer their emotions in online learning. The last version of the survey has 21 items and 2 subfactors which are “Giving Emotions” and “Receiving Emotions”. The factor analysis results showed that Cronbach Alpha for Giving Emotion was .86, for Receiving Emotions was .79 and for the total survey was .88. This Likert type survey is a five-point survey is Turkish and takes 10 minutes to complete.

Keywords: Emotional presence, survey, online learning

INTRODUCTION

Education is a way to understand your students’ needs and their expectations, teaching is a path to let students know what the real life brings them as issues to solve; and learning is a reaction of what students want to know or what they have experienced. Although, learning looks like a complex process, this complexity is not about its difficulties; it is all about the details of learning. Learning process comes with many variables such as students, teachers, learning environments and so on. One of the critical variables of learning is students’ needs, because education starts with better understanding students. It is essentially important to know how students learn and how students feel about interaction between their peers and instructors in the learning environment. Instructors should know students’ emotional presence to communicate with them efficiently. Emotions are the colors of human communication (Perikos & Hatzilygeroudis, 2013). Therefore, it is expected that emotions play critical roles in education, such as promoting students’ motivation (Rienties & Rivers, 2014; Kim, Park & Cozart, 2014), engaging students in learning tasks and materials (Linnenbrink-Garcia, Rogat & Koskey, 2011; Chen & Wu, 2015), increasing students’ satisfaction (Zembylas, 2008; Cho & Heron, 2015), and making communication meaningful between teachers and students in online learning environments (Sarsar, 2014). Although emotion in learning is a well-established topic in traditional classroom settings, it is a relatively new topic in online learning. Emotional presence by/with technology started to blossom couple of years ago. Cleveland-Innes and Campbell (2012, p.283) defines emotional presence “is the outward
expression of emotion, affect, and feeling by individuals and among individuals in a community of inquiry, as they relate to and interact with the learning technology, course content, students, and the instructor.” Emotional experiences are also related presence (sense of being) in online environment (Diemer, Alpers, Peperkorn, Shiban & Muhlberger, 2015).

Emotion in learning is a key to understand what and/or how students express their feelings for being understood in online learning environments. Some of learning environments are easier to recognize students’ emotions more than other environments, such as online learning environments. Face to face learning environments have many indicators to understand students’ emotions; however, online learning environments have some barriers and challenges to recognize students’ emotions (Sarsar, 2014). Cleveland-Innes, Garrison and Kinsel (2007) mentioned that emotion is a part of student adjustment to be an online learner. Hence, the first step for being an online learner is to know how to be an online learner. These feelings let and lead students to be more comfortable in learning environments both online and face to face. However, there are limited studies on understanding students’ emotion in online learning environments (Marchand & Gutierrez, 2012). Especially text based learning environments (Sarsar, 2014).

Students are using emotions strategically (Phirangee & Hewitt, 2015), hence instructors should know how these strategies might change or support their online teaching process. Phirangee & Hewitt (2015) highlighted that students can engage more efficiently by expressing the emotion, therefore some instructors should improve their online teaching skills to promote more effective online learning.

Hascher (2010) highlighted that a little about emotion and learning have been known, so students’ emotions might be related with different variables such as personal characteristics or environmental reasons. However, it is very important to know whether it is necessary to reveal students’ emotions in learning process. If online instructors believe that emotions need to be known during the learning process, they might experience with some challenges. One of the main challenges to determine students’ emotions in online learning environments is to answer this following question: How can online instructors understand students’ emotions? Unfortunately, there are limited studies have been done for answering this question.

Researchers have used different methodologies to know students’ emotions by using qualitative, quantitative and mixed methods. Rienties and Rivers (2014) mentioned that there were main methods of data analysis to measure and understand students’ emotion such as content analysis, natural language processing and behavioral indicators.

Sarsar (2014) used mixed method design to understand the students’ reflections on emotional motivational feedback messages. In their study, emotional content strategies and motivational strategies were combined into feedback strategies for a text based online learning environment. Cleveland-Innes and Campbell (2012) used discussion transcripts and a survey of questions regarding students’ online experiences. Cleveland-Innes and Campbell (2012) suggested adding emotional presence as the fourth category into Community Inquiry (CoI) framework. Therefore, they created a 6-item-survey and added these items into 35-item CoI Survey. One of the other ways to understand emotions is to identify behavioral indicators in online discussions (Rienties, Tempelaar, Giesbers, Segers & Gijselaers, 2014).

The studies showed that it is not easy to measure students’ emotion in online learning (Rienties & Rivers, 2014). Reflecting and receiving emotions in online learning might be difficult for both teachers and students (Artino, 2010). Therefore more research on emotions in online learning needed (Artino, 2012; Cleveland-Innes & Campbell, 2012).
According to Rienties and Rivers (2014) the number of quantitative data collection tools are limited. Achievement emotions questionnaire (Pekrun, Goetz, Frenzel, Barchfeld & Perry, 2011), Widener emotional learning scale (Wang, Young, White, & Marczyk, 2010), and Higher Education emotions scale (White, 2012) are most cited quantitative data collection tools for measuring or understanding emotional statements. These studies focus on understanding students’ emotion or emotional behaviors. Different from present studies, this current study aims to understand what students think about emotional interaction in online learning environments. This survey also helps to provide information which students are ready to reflect and receive emotional messages in online learning environments. The results of this survey will be able to give evidences to teachers for determining how their students would like to be taught and communicated or in which ways that they can transfer their emotions in online learning. Also, there is limited research on qualitatively measuring emotional statements in online learning in Turkish literature, therefore, this survey might serve to fill this gap in Turkish literature.

**METHODOLOGY**

The process of creating survey was explained in details under this section. The purpose of the current study was to create a scale for understanding students’ emotional presence and the ability of transferring their emotions in online learning environments. Therefore, the process of this study was structured to investigate the reliability and validity of the scale.

**Participants**

This study was conducted at a large public research university in Western Turkey during the spring semester in 2013-2014 academic calendar. There were 229 students who participated this study voluntarily. 163 of the participants were female (71%) and 66 of them were male (%39) and the average age of participants was 25 years old. On the average, they used internet approximately for 10 years and they spend 2-3 hours of a day by using Internet.

**The Steps of Creating the Survey**

Researchers followed ten steps for creating the survey: (i) literature review, (ii) question-pool, (iii) draft survey items, (iv) expert view, (v) modify draft survey items, (vi) survey form, (vii) pilot study 1- data collection, (viii) item analysis, (ix) modify and finalize the survey.

- **Literature Review:** The current literature and studies related to emotional presence and emotional transfer were read and the main issues on emotional presence in online learning were determined. During the literature review process, the studies focused on measuring and understanding emotion in different environments were listed. However, according the literature review were made by the authors; there was limited studies related emotional presence in online learning.

- **Question-pool:** The question pool was created considering by literature on emotional transfer strategies. The 97 questions were written for measuring students’ emotional presence. Researchers wrote the questions under two categories (giving and receiving emotions) and collected them in the same question-pool.

- **Draft Survey Items:** The doubled and overlapped items were deleted from the initial pool. The draft survey was formed with 46 items. The draft survey form was created for experts to decide which question measure students’ emotion presence in online learning environment. For this reason, form was categorized into 3 sections for each question such as “Accepted”, “Not Accepted” and “Should be modified”.

- **Expert review:** Eleven experts from different and related disciplines attended this study. Expert team consisted on one associated professor and three assistant professors from Guidance and Psychological Counseling Department; two assistant professors from Communication Department; two assistant professors and three
research assistants from Computer Education and Instructional Technology Departments. After expert teams’ view, the items were modified considering their recommendations and advice.

- **Modify Draft Survey Items:** According to experts’ views, 10 items were deleted, 4 items were modified. The second version of the survey was formed with 36 items under 2 subcategories: Receiving Emotions and Giving Emotions.

- **Create the Survey Form:** The second version of survey form created as a 5-likert type survey form for measuring and understanding students’ emotions on their statements of emotional presence in online learning environments. This Likert type survey is a five-point survey such as Thoroughly Agree, Agree, Neutral, Disagree, and Thoroughly Disagree.

- **Pilot Study 1 - Data Collection:** There were 229 students who completed the survey which took approximately 10 minutes for each student. According to Tabachnick & Fidell (2001) the amount of 229 participants is adequate to create the survey.

- **Item Analysis:** CFA (confirmatory factor analysis) EFA (exploratory factor analysis) and reliability analysis was applied and detailed under Findings section. Statistical analysis of data was performed using SPSS 19.0 and LISREL 8.72 software. For the reliability of the survey, Cronbach’s Alpha of internal consistency coefficient was calculated. Varimax factor rotation solution was applied and 0.30 rule has been accepted for factor loading of the survey. The principal components analysis was used for exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) is performed to test the accuracy of the construct.

- **Modifying and Finalizing the Survey:** After the analysis part, the survey was consisted of 21 items with 2 factors: Receiving Emotions and Giving Emotions. The total Cronbach Alpha was calculated .88.

**FINDINGS**

In this section the findings of calculating validity and reliability of the survey, which is called Emotional Presence in Online Learning Environments, were explained.

**Exploratory Factor Analysis Results**

Exploratory factor analysis (EFA) results are shown under this topic for representing the construct validity of the survey and determine factor loadings. Before starting the process of EFA, negative items are coded adversely. Furthermore, Kaiser-Meyer-Olkin (KMO) coefficient test and Bartlett Sphericity test were used for testing the goodness of fit between the data and factor analysis. KMO is calculated as .86 and result of Bartlett Sphericity ($x^2$=2069.2, p=0.000) test was found significant (George and Mallery, 2011). According to results of CFA, survey design is classified under 8 factors. Descriptive variances of these factors are 59.38%.

According to analysis; 15 items that factors loadings under .30, unloaded to any factors and overlapped values of the items which are around .1, are excluded. EFA was repeated with the 21 items by considering the factor numbers, literature studies and the purpose of study. According to result of the analysis, factors’ loadings of items are shown in Table 1.
Table 1: Factors’ Loadings

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor 1</th>
<th>Factor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EFA*</td>
<td>CFA**</td>
</tr>
<tr>
<td>M8</td>
<td>.666</td>
<td>.64</td>
</tr>
<tr>
<td>M10</td>
<td>.706</td>
<td>.70</td>
</tr>
<tr>
<td>M12</td>
<td>.729</td>
<td>.70</td>
</tr>
<tr>
<td>M17</td>
<td>.551</td>
<td>.49</td>
</tr>
<tr>
<td>M20</td>
<td>.614</td>
<td>.44</td>
</tr>
<tr>
<td>M23</td>
<td>.704</td>
<td>.75</td>
</tr>
<tr>
<td>M24</td>
<td>.344</td>
<td>.40</td>
</tr>
<tr>
<td>M25</td>
<td>.661</td>
<td>.67</td>
</tr>
<tr>
<td>M28</td>
<td>.427</td>
<td>.47</td>
</tr>
<tr>
<td>M30</td>
<td>.594</td>
<td>.53</td>
</tr>
<tr>
<td>M34</td>
<td>.477</td>
<td>.54</td>
</tr>
<tr>
<td>M35</td>
<td>.528</td>
<td>.65</td>
</tr>
<tr>
<td>M1</td>
<td>.317</td>
<td>.35</td>
</tr>
<tr>
<td>M3</td>
<td>.648</td>
<td>.61</td>
</tr>
<tr>
<td>M9</td>
<td>.451</td>
<td>.50</td>
</tr>
<tr>
<td>M13</td>
<td>.481</td>
<td>.39</td>
</tr>
<tr>
<td>M14</td>
<td>.615</td>
<td>.53</td>
</tr>
<tr>
<td>M16</td>
<td>.798</td>
<td>.72</td>
</tr>
<tr>
<td>M27</td>
<td>.532</td>
<td>.61</td>
</tr>
<tr>
<td>M32</td>
<td>.596</td>
<td>.49</td>
</tr>
<tr>
<td>M36</td>
<td>.682</td>
<td>.71</td>
</tr>
</tbody>
</table>

* Factor loading for EFA
** Factor Loading for CFA
*** Estimated t-value using CFA (t)

Table 1 shows the factor loadings of factor analysis, CFA and estimated t value. According to Table 1, t values are statistically significant. The survey form was consisted of 21 items and 2 factors, of which factor loads changed between 0.317 and 0.798. The scale explains 40.31% of the total variance.

The first factor was consisted of 12 items and the range of items loadings changed from .344 to .729. This explains 32.21% of total variance. The first factor was formed to understand the emotions in online learning environments and titled “Receiving Emotions”. The second factor was consisted of 9 items and the range of items loadings changed from .317 to .798. This explains 8.1% of total of variance respectively. The second factor was formed to reflect emotions in online learning environments and titled “Giving Emotions”.

The results of analysis showed that the factors presented high accuracy on their compatibilities and consistencies with estimated factors at the beginning of the analysis. In addition, the analysis for determining the relation between the correlation of collected data and factors was shown in Table 2. According to the results, factors had a significant relation with each other.
Table: 2
Correlation coefficient between Factors

<table>
<thead>
<tr>
<th>Factors</th>
<th>Receiving emotions</th>
<th>Giving emotions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receiving emotions</td>
<td>1</td>
<td>.71*</td>
</tr>
<tr>
<td>Giving emotions</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

*p < .01

Confirmatory Factor Analysis

Confirmatory factor analysis (CFA) has been conducted for confirming the structure which has been found with EFA. Results of the CFA are presented in Table 2. Acceptable indexes according to Schermelleh-Engel ve Moosbrugger’e (2003) is shown below.

Table: 3
Statistical values as to confirmatory factor analysis

<table>
<thead>
<tr>
<th>X²</th>
<th>X²/df</th>
<th>RMSEA</th>
<th>S-RMR</th>
<th>GFI</th>
<th>AGFI</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structure with two factors</td>
<td>265.17</td>
<td>1.43</td>
<td>0.044</td>
<td>0.055</td>
<td>0.90</td>
<td>0.88</td>
</tr>
</tbody>
</table>

Acceptable Fit Index

<table>
<thead>
<tr>
<th>Good Fit Index</th>
<th>.05 &lt; RMS A &lt; .10</th>
<th>.05 &lt; S-RMR &lt; .1</th>
<th>.90 &lt; GFI &lt; .95</th>
<th>.85 &lt; AGFI &lt; .90</th>
<th>.90 &lt; CFI &lt; .95</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acceptable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

RMSEA: Root Mean Square Error of Approximation
GFI: Goodness of Fit Index
AGFI: Adjusted Goodness of Fit Index
S-RMR: Standardized RMR
CFI: Comparative Fit Index

According to Schermelleh-Engel et al. (2003), Kline (2005) and Hooper et al. (2008), GFI, AGFI, S-RMR values were found the range of acceptable values and RMSEA and also $X^2/df$ values were found in the acceptable range. The path diagram as to the confirmatory factor analysis is given in Figure 1.
To sum up, Emotional Presence in Online Learning Environments Scale has been concluded as two- factors. The results of the confirmatory factor analysis support construct validity of the scale.

**Result of the Reliability Analysis**

Cronbach alpha and internal reliability score were calculated to determine the reliability of Emotional Presence in Online Learning Environments Survey. The Cronbach alpha of the survey was .88. The Cronbach alpha of the Giving Emotion factor was .79 and the Cronbach alpha of the Receiving Emotion factor was .86. Therefore, it shows that the survey’s internal reliability is considered in the acceptable range (Buyukozturk, Kilic-Cakmak, Akgun, Karadeniz & Demirel, 2011).
CONCLUSION

The purpose of the current study was to create a survey to be used for understanding students’ views on transfer their emotions in online learning environments. This survey might help instructors to know their students better in terms of understanding their emotional statements. Emotions give clues to instructors how/what their students would like to do in the class. Finalized version of the survey had 21 items and 2 subcategories. These subcategories are “Giving Emotions” and “Receiving Emotions”. The factor analysis results showed that Cronbach Alpha for Giving Emotion was .86, for Receiving Emotions was .79, and for the total survey was .88. The survey was found to be a reliable and valid instrument considering the study population.

This Likert type survey is a five-point survey such as Thoroughly Agree, Agree, Neutral, Disagree, and Thoroughly Disagree. The language of this survey is Turkish and takes 10 minutes to complete. Under two factors, six items of the survey were shown in Table 4. First three items give examples of giving emotions and last three items give examples of receiving emotions. All items of this survey are self-reported; therefore it has the same limitations with other self-report surveys.

It might be a good start before an online course to decide the efficient communication and interaction ways during the course. It is important for instructors to understand their students’ thoughts on emotional transfer in online learning environments (Sarsar & Kisla, 2013). This might help/assist students to be more motivated by knowing whether they are comfortable to receive and give their emotion in online learning environments especially text based environments, because emotions are one of the keys to motivate students (Wang et al, 2010).

<table>
<thead>
<tr>
<th>Factors</th>
<th>Item (Original)</th>
<th>Item (Translated)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Giving</td>
<td>Çevrimiçi öğrenme ortamlarında mutluluğumu rahat ifade ederim.</td>
<td>I can express my happiness in online learning environments.</td>
</tr>
<tr>
<td>Giving</td>
<td>Çevrimiçi öğrenme ortamlarında duygularımı istedigim şekilde ifade edebilirim.</td>
<td>I can express my feelings by the way I like in online learning environments.</td>
</tr>
<tr>
<td>Giving</td>
<td>Korkumu çevrimiçi öğrenme ortamlarında iletişim kurduğum kişilere aktarırım.</td>
<td>I can express my fear to person whom I contact with in online learning environments.</td>
</tr>
<tr>
<td>Receiving</td>
<td>Çevrimiçi öğrenme ortamlardaki iletişim kurduğu kişilerin neşeli olduğunu anlarım.</td>
<td>I can understand the feelings of the people whom I contact with are happy in online learning environments.</td>
</tr>
<tr>
<td>Receiving</td>
<td>Çevrimiçi öğrenme ortamlarında iletişim kurduğu kişilerin duygularına dikkat ederim.</td>
<td>I notice the feeling of the people whom I contact with in online learning environments.</td>
</tr>
<tr>
<td>Receiving</td>
<td>Çevrimiçi öğrenme ortamlarında iletişim kurduğu kişilerin üzgün olduğunu anlarım.</td>
<td>I can understand the feelings of the people whom I contact with are sad in online learning environments.</td>
</tr>
</tbody>
</table>

* These items translated from Turkish to English. The language validity hasn’t been checked.

It is not easy to measure all emotions not only in traditional face to face learning environments but also in online learning environment. If the instructors communicate with their students by understanding their feelings momentarily or generally, it might help to create strong communication between students and instructors. Therefore, students might feel closer to their instructors. Sarsar (2014) highlighted that emotional motivational communications such as feedback made students comfortable to talk to their instructors. According to literature,
there are limited studies to measure students’ emotions and their effects in online learning environment. These studies used qualitative, quantitative and mixed method designs to understand students’ emotion. The majority of these studies focused on students’ emotion during the learning process. However, students might not be comfortable or unexperienced to transfer their emotions online. Understanding students’ thoughts to transfer emotions in advance or before starting a course might be more useful for designing the course.

Spatial presence, involvement and realness are the components of presence (Schubert, Friedmann & Regenbrecht, 2001), therefore, it might be assumed that emotional presence is to be emotionally spatial presence, involvement and realness. According to literature review, Rienties & Rivers (2014) highlighted that there were around 100 negative, positive or neutral emotions in online environments. It might be a challenge for online instructors to understand and/or measure students’ emotional presence. In this current study, it was focused to assist online instructors to cope with this challenge by recognizing their students’ emotions. This survey gives evidence if the students are ready to receive and give their emotions online, however it doesn't provide any solutions. The solutions or teaching strategies should be created or designed by the online instructors, because at the end of designing process, instructors should decide the ways in which they would like to teach.

As it was mentioned before, there are many ways to interact between instructors and students in online learning environment. This survey serves (i) to provide evidences about students’ emotional presence, (ii) to assists online instructors for determining efficient ways of communication, and (iii) to helps instructors for recognizing their students’ communicational skills.

It is believed that this survey will provide different aspects of online teaching in the literature, because there is limited research on emotional presence in online learning. Results of new studies will reveal new information and experiences on this topic. Therefore, researches on emotional presence are needed and researchers should focus on this specific topic to give more evidence in online learning.

BIODATA and CONTACT ADDRESSES of the AUTHORS

Firat SARSAR is an Assistant Professor at Ege University, Department of Computer Education and Instructional Technology in Turkey. He earned his BA and MS degrees in the Department of Computer Education and Instructional Technology in Turkey. Dr. Sarsar graduated from Georgia State University in USA with his Ph.D. in Instructional Technology as a Fulbright scholar in 2014. His Ph.D. was fully funded by Fulbright Scholarship. He taught “Computer Skills for the Information Age” course for undergraduate students at Georgia State University for 3 years. He was in many projects related to technology integration and teacher education. He holds the Association for Educational Communications and Technology (AECT) Cochran Intern Award in 2013 which is given for recognition of young leaders of the field. Currently, He teaches “Social Media and Web2.0 tools in Education”, “The Internet for Educator”, Technology Integration in Education” and “e-Learning Design” courses in undergraduate and graduate levels in Ege University. His research interests are motivation, online learning, mobile technologies, e-learning and online feedback strategies.

Assist. Prof. Dr. Firat SARSAR
Ege University, College of Education
Department of Computer Education and Instructional Technologies
Ege University, Bornova, Izmir, TURKEY 35100
Phone: 0(232) 373 35 75 - 3146 Fax: 0(232) 373 47 13
Email: firat.sarsar@ege.edu.tr
Tarik KISLA earned his BA degree in Mathematic department in 1998. Dr. Kisla graduate from International Computer Institute with his MS degree and Ph.D. in Information Technologies. He has another MS degree from Curriculum and Instruction at Ege University. Currently, Dr. Kisla is an Assistant Professor at Ege University, Department of Computer Education and Instructional Technology in Turkey until 2002. His research interests are Distance Education, mobile Technologies and learning, mobile and web programming. Dr. Kisla teaches “Web Programming”, “Technology Integration in Education”, “Mobile learning and programming”, “Networks”, “Operating Systems”, “Object oriented Programming” courses in undergraduate and graduate levels in Ege University. He was in many projects related to information and communication technology and teacher education. He has presented in national and international conferences and published scholarly articles.

Assist. Prof. Dr. Tarık KISLA  
Ege University, Faculty of Education  
Department of Computer Education and Instructional Technologies  
Ege University, Bornova, Izmir, TURKEY 35100  
Phone: 0(232) 373 35 75 - 3146 Fax: 0(232) 373 47 13  
Email: tarik.kisla@ege.edu.tr

REFERENCES


INFORMATION NEEDS OF DISTANCE LEARNERS: A CASE OF WINNEBA STUDY CENTER, UNIVERSITY OF EDUCATION, WINNEBA, GHANA

Agatha Gifty LARSON
Library Department
University of Education, Winneba, Ghana

Michael OWUSU-ACHEAW
Library Department
Koforidua Polytechnic, Koforidua, Ghana

ABSTRACT

The study focuses on the information needs of distance learners of the Winneba Study Centre of the University of Education, Winneba. The main objective was to investigate the information needs of this group of students who live far away from their host institution and have minimal interaction with their tutors. The study was a survey and made use of a questionnaire as research instrument. The target population consisted of all distance learners of the Centre; this includes the Diploma and Post Diploma students numbering 1,029 as at 2014/2015 academic year. A sample size of 206 representing 20% of the population was selected through random sampling. The questionnaire was analyzed using frequency tables and percentages. Findings of the study were that distance learners depend solely on the course materials and lecture notes as the only source of information due to their tight schedule. They were also not using libraries to support their learning and other academic activities as they lacked searching and library use skills. Furthermore, it was found that the learners prefer print format to electronic format and lack of time and inability to search for information are some of the hindrances to their information utilization. Based on the findings, it was recommended among other things that, tutors should endeavor to give assignments that would require the use of libraries, efforts should also be made by library management in partnership with distance education administrators to run mobile library services, instruction on library use, negotiate for space in public and school libraries to keep library materials for use by the learners and also provide instruction on how to access and use both print and electronic resources in libraries.

Keywords: Distance education, distance learners, information needs, libraries, information, Winneba study center

INTRODUCTION

The desire for higher education by individuals who could not be admitted into regular universities has brought about the need for part-time and distance education opportunities. The advantage of this mode of learning is that men and women both old and young and working professionals who for some reasons were not able to take up regular programs could be taken care of due to its flexibility. Thus, one could engage in full time job and at the same time attend classes. Distance education could be described as a form of education where learners have minimal physical contact with their tutors. It could also be described as
a form of education in which there is geographical separation between the learner and the learning institution (Mabawonku, 2004). There is minimal physical contact between the learner and the tutor. It is therefore learner-centered because the individual chooses the place of study; learns in a variety of ways and takes control of his learning.

Distance education program has been accepted by institutions in many parts of the world in both the developed and the developing economies largely because it has been seen as a means of extending educational opportunities to millions of people and thereby contributing to the human resource development of a nation (Boadi and Letsolo, 2004). According to Gu (2006), distance education is one of the fastest growing trends in higher education. Arguably it has become a saving grace to millions of people around the world who desire to pursue further studies.

In Ghana, as a way of reducing the cost of tertiary education and at the same time increasing access to tertiary education in the country, adopted the distance education program through the Ministry of education after a number of surveys to assess the distance education needs of Ghana. Presently, both public and private universities have embraced the policy and are running various programs for the teeming population across the length and breadth of the country. These institutions have made earning a degree more flexible for the many people across the country that have families and jobs in addition to the desire to further their education. The first institution to pioneer the distance education program was the University of Education, Winneba, with assistance from the Overseas Development Administration (ODA) now known as Department for International Development (DFID). Consequently, the Institute for Educational Development and Extension of University of Education, Winneba was established to run the program for teachers with Certificate ‘A’ and holders of Diploma in Education to study part-time for a degree so that there would not be disruption to their full-time teaching. Thus, the University is helping full-time teachers to earn Diplomas and degrees in a more flexible way without disruption in their teaching functions.

Information is vital to the development of a society. Thanuskod (2011), identified information as the core for development of knowledge, the basis for innovation, resources for informed citizenry, and as a result becomes a key commodity for the progress of society. Information needs then arise when one realizes that there is a gap in one’s knowledge about something. Therefore; the library’s information needs arise when one realizes that there is a gap in one’s knowledge about something. Libraries play a significant role in meeting the information needs of the various user groups through the provision of resources in both print and electronic format. These libraries see their responsibility as ensuring that the use of information resources and services is maximized to benefit users. Distance learners are expected to use the resources of the library to answer information needs and to prepare for examination and other scholarly needs.

Distance learners live far away from their host institutions and obviously do not have the same opportunities as their counterparts in residence regarding the use of library resources and services though the basic needs are the same as those of conventional students. They have special needs and concerns that differ greatly from those on campus. It is therefore desirable to understand the information needs of this group of students since they are also entitled to library services regardless of their location.

The suggestion by Association of Colleges and Research Libraries in America (ACRL), (2000), underscores the need to survey distance students in order to serve them better. It states that librarians should regularly survey distance learners in order to monitor and assess both the appropriateness of their use of services and resources and the degree to which their needs are being met. Also Dew (2001) recommends that librarians must understand who
their off campus students are and what they want. In addition, each user group or constituencies of academic library possess differing needs and expectations, it is therefore not appropriate to use one group’s information needs as the principal guide for determining services offered to all users.

The effort to identify the most effective library services for distance students can be informed by routine surveys of the distance students. Research is lacking about distance learners of the University of Education, Winneba Study Centre use of library and library services. Information is also needed about these distance learners whose population is growing year after year vis-a-vis library services. With these gaps in information in mind, the focus of this study was to investigate the information needs of the distance students of University of Education, Winneba, Winneba Study Centre. The question is, how does this group of students fulfill their information needs? Are they competent in information gathering skills? What hinders them in their information gathering? Do they depend only on their course modules to satisfy their information needs? Adequate knowledge about their information needs would help the Library to re-orient their collections and services for them.

The significance in this study lies in the fact that the findings of this study would be useful to the University of Education, Winneba Library management in line with the strategic plan of the University to develop collection and services appropriate to the information needs of distance learners. Consequently, this study aims at identifying the information needs of this group of users. The study is essential for developing collection and services appropriate to the information needs of distance students of the Winneba Study Centre.

THE PROBLEM

The use of library resources and services is vital for both conventional and distance learners as well. According to Kavulya (2004), an approach to distance education that ignores the role of libraries in the first place, provides a narrow experience for the learners and fails to encourage the expected research led – inquiry of knowledge as well as the development and challenging of knowledge”. An examination of long essays of the distance students at the Winneba Study Centre suggests that distance learners have not seen utilizing the libraries to satisfy their information and research needs. Students in tertiary level of education are expected to utilize resources at the library to enhance their studies and support their scholarly needs. It is in this vein that the researchers deem essential to investigate their information needs in order to find solution.

Objectives of the Study

The main objective of the study is to investigate the information needs of distance students of University of Education, Winneba, Winneba Study Centre. The specific objectives are to identify the followings:

- Information needs of the respondents
- Library use and computer skills in obtaining information by the respondents
- Types of library and sources used to obtain information by the respondents
- Preferred information formats of respondents
- Challenges in the information acquisition by the respondents.

Research Questions

- The study attempts to address the following questions:
- What are the information needs of the respondents?
- What library use and computer skills do respondents have in obtaining information?
What types of library and sources of information do respondents use to obtain information?
What types of information formats do the respondents prefer?
What problems do the respondents encounter in obtaining information?

Brief Background of the University of Education, Winneba

The University of Education, Winneba (UEW) was established by the University of Education, Winneba Act 672 on May 14, 2004. It was originally established by PNDC Law 322 (1992) as the University College of Winneba (UCEW) through the amalgamation of seven (7) diploma awarding institutions. The University is charged with the responsibility of producing professional educators to spearhead a new national vision of education aimed at redirecting Ghana’s efforts along the path of rapid economic and social development. The University is expected to play a leading role in the country’s drive to produce scholars whose knowledge would be fully responsive to the realities and exigencies of contemporary Ghana and West Africa sub-region. The University offers fulltime, sandwich and distance learning programs. It has four campuses; the Winneba Campus, the Kumasi Campus, the Mampong Campus and the Akuako Campus respectively (Joppa, 2002).

Distance Education in University of Education, Winneba

The University of Education program is in line with the University’s mission to equip teachers with the requisite proficiency and professional competency for teaching at the pre-tertiary level. The program aims at upgrading the academic and professional competency of basic school teachers in the country. The University of Education distance program focuses on teacher education with the same academic and professional components as the on-campus programs. The academic component comprises specific subjects taught in primary, Junior Secondary and Senior High schools such as Mathematics and Social studies. The professional component, on the other hand, consists of the theory of Education, school management and pedagogy. The program has made higher education accessible to teachers without any restrictions. The Institute for Educational Development and Extension (IEDE) through the Centre for Distance Education runs the program. The Centre currently has twenty-four (24) centers including the Winneba Study Centre. Classes are held on weekends. The Winneba Study has a library manned by a professional librarian.

REVIEW OF LITERATURE

Distance education students just like other user groups have their information needs. A number of studies have been conducted into information needs of distance learners. According to Oladodun (2014) a previous study provided an account of the survey carried out at the Deakin University in Australia showed that majority of external students were frequent users of public libraries, using public libraries more frequently than any other type of library, including the student’s own university library. In a survey by Sutherland (2000) on information use among distance learners associated with Western Colorado Graduate Center in the US, she found that majority of the survey participants borrowed materials from local academic and local public libraries. The result also revealed that more than half of the students did not use the main campus that is the distance education provider library. The reasons given for using what they used include: ease of use, location and resources.

In a study conducted by Mabawonku (2004) among some undergraduate distance learners in three Nigerian universities, it was revealed that the students used other libraries much more than the university libraries. However, the study shows that less than half of the respondents used their main university libraries regularly. The study further affirms that the students use some departmental libraries and other libraries outside the campus mainly for reading their personal books. Similarly, Oladokun (2002) carried out a study of the Diploma in Primary
Education (DPE) and Certificate in Adult Education (CAE) students of distance education of the University of Botswana and the role played by the University of Botswana Library. The results of the survey revealed that significant numbers of distance learners nine out of ten indicated a need for materials beyond course readings, almost half (48%) had not used a library, a quarter used the University Library, and a quarter visited a public library (Oladokun, 2002).

The study of Hensley and Robin (2010) on distance learners in University of Illinois concluded that distance learners at the University generally appreciate the library and make use of the services and resources to satisfy their information needs but the scope of library services accessed is limited. On the other hand, Aliakbar et al. (2009) in a study conducted on distance learners in Iran reported that although distance learners had positive perception toward the use of information resources, the University had no formal library services for the students to use during their study.

Bibb (2003) also observes that as a result of poor use of library by distance students in South Missouri State University, the Library made effort to serve the students through innovative techniques and resources to attract usage of resources by the students to satisfy their information needs and these include the Library’s links/access to a number of open access online databases. A study conducted by Lui and Yang (2004) reported that distance learners showed preference for information that is easily available. They also found that the learners’ fields of study also affected their use of information sources in Texas A & M University which was the study area.

Thanuskodi (2012) reported a study conducted that users lack library skills to enable them acquire the needed information in satisfying their information needs. He reported again that the users also lacked computing skills to enable them utilize information technology – based library sources and facilities. Adesoye and Amusa (2011) observe that due to the flexibility of distance education program both old and young alike irrespective of gender have undertaken the program. Mabawonku (2004) conducted a survey of library use in distance learning in three Nigerian universities. She found that students use of the library resources for information and self-development was inadequate. According to her, the students attributed their low use of the library to their tight schedules which were fully occupied with lectures and interactions with tutors. Adetimirin and Omogbue (2011) also concluded in a study underscored that distance students were not using the libraries because of their tight schedules which were fully occupied with tutorials. Oladokun (2002) found that learners of Open University of Tanzania depended more on the public and private library system to meet their information needs; however he concluded that it was not an adequate solution in the sense that the stock was not relevant to the information needs of the students.

Furthermore, Boadi and Letsolo (2004) investigated the information needs and seeking behavior of distance students at the Extra- Mural Studies in Lesotho. The revelation was that course materials seemed to be popular with the distance students and the expectation of the students was that more course materials would be produced by the Institute. They concluded that however useful these course materials may be as sources of information for the distance students, dependence on them could breed parochialism which could endanger the whole educational processes.

In another study conducted by Adesoye and Amusa (2011), found that though distance students were aware and make use of the institutional libraries to meet their information needs, there were, however, impediments to the students utilization of library and information resources. These impediments among others were inadequate library facilities, lack of time due to the intensive nature of their program and reliance on study materials.
Oladokun (2010) reports a survey conducted at the University of Botswana, on their off-campus students. The findings of the study revealed that students have preference for print format; only few numbers would have preferred electronic format. He also found that students rely mostly on their lecture notes dictated to them in class and also relied on their colleagues as their major sources of information.

**RESEARCH METHODOLOGY**

This is a survey research which focused on the information needs and seeking behavior of the distance learners of Winneba Study Centre at the University of Education, Winneba. The rationale for the choice of the survey design was that it is suitable for descriptive, explanatory and exploratory studies (Babble and Benaquisto, 2002). The target population for the study consists of all distance students of the study center as at 2012/2013 academic year numbering, 1,029. This includes diploma and post diploma students enrolled on the program. The data gathering instrument was the questionnaire. The questions were based on the research questions formulated to guide the study. A sample of 206 respondents representing approximately 20% was randomly selected using a table of random numbers for the study. This random size is supported by Babbie (2005). He is of the opinion that a population of 1000 and above, a sample size of 10 – 20% is acceptable.

The instrument used to elicit information from the respondents was opened and closed ended questions. The researchers with the help of two assistants administered the questionnaire to the respondents after explaining to them the purpose and relevance of the study. Their anonymity was also assured. The administration of the questionnaire was done right in the lecture hall and retrieved from them after the completion; there was therefore a high response rate. After going through them, it was realized that seven were unusable and were discarded giving a response rate of 97% Simple percentages were used to analyze the data collected from the respondents of the study.

**FINDINGS**

Presentation of the result of the study was done based on the design research questions formulated to guide the study of the study. Of the respondents, 101 (51%) were male, 98 (49%) were female. All the respondents were distance students of the Winneba study center. Data were analyzed into simple percentages and frequencies. Demographic distribution is shown in Table 1.

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-35</td>
<td>87</td>
<td>44</td>
</tr>
<tr>
<td>36-45</td>
<td>108</td>
<td>54</td>
</tr>
<tr>
<td>47-55</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>199</td>
<td>100</td>
</tr>
</tbody>
</table>

Sources: Field Survey, 2015

The analysis of the study showed that 106 (52%) were males and 98 (45%) were females. With regard to the age distribution, Table 1 revealed that it ranges from 25-55 years. Thus, there is no age limit to distance education and distance education caters more for older adults with majority of them belonging to age range 36-45. The findings indicate that the distance education programs are being undertaken by both male and female. Also majority of them are matured students aged between 36-45. There is therefore no age limit, thus both the young and old alike could enroll on the program.
<table>
<thead>
<tr>
<th>Information needs</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information relevant to their program</td>
<td>85</td>
<td>43</td>
</tr>
<tr>
<td>Info easily available</td>
<td>79</td>
<td>40</td>
</tr>
<tr>
<td>Interested in current information</td>
<td>21</td>
<td>10</td>
</tr>
<tr>
<td>Liked information from the internet</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Liked information free without any cost</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>199</td>
<td>100</td>
</tr>
</tbody>
</table>

**Sources: Field Survey, 2015**

Table 2 gives an overview of the information needs of the respondents. The question relating to their information needs was open ended and as such respondents were not restricted to specific answers. This therefore enabled them to describe their information needs in any form they wished so that their actual information needs could be appreciated.

A number of the respondents 85 (43%) indicated that they liked information relevant to their program of study, while 79 (40%) preferred information that is easily available. Also 21 (10%) were interested in current information. On the other hand, 8 (4%) indicated they liked information from the Internet while only 6 (3%) indicated that they wanted information that was free without any cost to them whatsoever. The findings revealed that distance students appreciate information that has bearing on the courses they are offering, easily available, information from the Internet and lastly information for free. It could be deduced that few of the respondents who indicated free information might have been spending in their bid to acquire information to satisfy their needs.

**Table: 3**

Skills in searching for information in print format

<table>
<thead>
<tr>
<th>Skill level</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Very Good</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Good</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Fair</td>
<td>61</td>
<td>31</td>
</tr>
<tr>
<td>Poor</td>
<td>134</td>
<td>67</td>
</tr>
<tr>
<td>Total</td>
<td>199</td>
<td>100</td>
</tr>
</tbody>
</table>

**Sources: Field Survey, 2015**

In Table 3, respondents were asked to provide self-assessment of their library use skill. The library use skills can have an impact on how the respondents use materials at the library to acquire the needed information. It is natural that respondents who have the skills were expected to make effective use of the resources better than those with no library use skills. Analysis of the data revealed that a significant number 134 (67%) of respondents rated their searching skills poor, 61 (31%) as fair, only 4 (2%) rated their searching skills as good. It is pertinent to note that none of the respondents rated their skills as excellent and very good.” Respondents’ low level of library skills could impact greatly on their utilization of information resources in print format.
Table 4
Electronic information searching skills

<table>
<thead>
<tr>
<th>Skill level</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Very good</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Good</td>
<td>22</td>
<td>11</td>
</tr>
<tr>
<td>Fair</td>
<td>106</td>
<td>53</td>
</tr>
<tr>
<td>Poor</td>
<td>71</td>
<td>36</td>
</tr>
<tr>
<td>Total</td>
<td>199</td>
<td>100</td>
</tr>
</tbody>
</table>

Sources: Field Survey, 2015

Respondents were asked to rate their online information searching skills. Users’ level of computing can also have an impact on their use of the electronic resources available in the Library. From Table 4, it can be observed that a greater number of respondents assessed their computing skills as fair 106 (53%), while 71 (36%) rated their skills as poor. Only 22 (11%) assessed their skills as good. Again none of the respondents rated their skills as “excellent” and “very good”. This implies that respondents will not be able to utilize effectively the electronic resources and facilities available in the library; this obviously would impact negatively on their information acquisition. Most of the information can be found online, but without the skills for searching one cannot fully utilize them to their benefit. The University Library catalogue of University of Education, Winneba is now online and to fully appreciate and use it effectively users must acquire computing skills to explore the catalogue to find materials available in the Library and also to be able to utilize the electronic resources.

Table 5
Types of library used

<table>
<thead>
<tr>
<th>Type of library</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>University Main Library</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Study Centre Library</td>
<td>15</td>
<td>7</td>
</tr>
<tr>
<td>Public Library</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>School Library</td>
<td>49</td>
<td>25</td>
</tr>
<tr>
<td>Special Library</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Never Used Library</td>
<td>121</td>
<td>60</td>
</tr>
<tr>
<td>Total</td>
<td>199</td>
<td>100</td>
</tr>
</tbody>
</table>

Sources: Field Survey, 2015

Table 5 captured the types of library respondents’ use to support their studies and enhance their information needs. The Table 5 shows a number of respondents, 121 (60%) never use the library to enhance their scholarly endeavors. The reason they assigned was that they did not have much time due to the nature of their program, while 49 (25%) made use of school library. Also 15 (7%) indicated that they used the Study Centre Library, 9 (5%) indicated that they use the public library, only 5 (3%) used the Main University Library of University of Education, Winneba. On the other hand, none of the respondents indicated using any special library. The results show that respondents use all types of library to satisfy their information needs, though the percentage is not significant. It is regrettable to note that a significant majority 121(60%) of the respondents indicated not using library to carry out their learning activities and other academic exercise. Perhaps these students live in areas where there are no libraries in their communities. Those who used the school and public libraries indicated that the materials did not meet their information requirement. Those who used the Study Centre Library also indicated that the materials were relevant but more materials should be acquired on teaching method. The results showed that the distance learners use all types of libraries to access information or conduct other learning activities with exception of special
library. Those who use the public library indicated that the materials did not meet their information requirement, 15(7%) indicated that they use the Centre Library only when they attend tutorials on Saturdays, only 5(3%) indicated that they use the University Main Library. They were of the indication that the materials were helpful and relevant as it helped them to carry out their learning and other academic tasks. They also indicated that the materials at the Study Centre Library were equally relevant; however more materials should be added to the present stock.

<table>
<thead>
<tr>
<th>Sources used to obtain information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sources</td>
</tr>
<tr>
<td>Library Resources</td>
</tr>
<tr>
<td>Course material</td>
</tr>
<tr>
<td>Colleagues</td>
</tr>
<tr>
<td>Lecture notes</td>
</tr>
<tr>
<td>Internet</td>
</tr>
<tr>
<td>Personal collection</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

The study made an attempt to find sources from which the respondents acquire information to assist them in their scholarly endeavors. From Table 6, the most common sources used to obtain information is the course material 101(51%) followed by those who use lecture notes, 75 (38%) while 11(5%) depend on information from colleagues. Again 7(3%) obtain information from their personal collection. The least sources used by the respondents were library resources, 3 (2%) and the Internet respectively 2(1%). The findings depict that a significant majority (89 %) of students depend on course materials and lecture notes. The findings revealed lack of use of library resources by respondents.

<table>
<thead>
<tr>
<th>Preferred information format</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information format</td>
</tr>
<tr>
<td>Electronic</td>
</tr>
<tr>
<td>Print</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Attempt was made to identify their most preferred information format, the table reveals that a significant number of the respondents were interested in print format 128(64) while the remaining 71 (36%) showed interest in electronic format. This is not surprising because the learners have all their lives been used to print as information format as against the electronic format.

<table>
<thead>
<tr>
<th>Barriers to information acquisition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impediment barrier</td>
</tr>
<tr>
<td>Reliance on study material and lecture notes</td>
</tr>
<tr>
<td>Lack of time</td>
</tr>
<tr>
<td>Lack of library searching skills</td>
</tr>
<tr>
<td>Inadequate library facilities</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Sources: Field Survey, 2015
The respondents were then asked to indicate impediments to their utilization of library and information sources in (Table 7). Table 7 shows that over-reliance on study material and lecture notes 94(47%) was top among the barriers to impediment to their utilization of information resources. Other barriers include lack of time 77(39%), library and information searching skills 13(6%) and 15(8%) as inadequate library facilities. Oladokun (2010) remarked that it does not sound desirable for the tertiary level students to depend on lecture notes in order to write assignment, test and examination or obtain the needed information.

**DISCUSSION OF FINDINGS**

The study revealed that the distance education program is undertaken by both male and female and there is no age limit. Also both the young and old could be enrolled on the program. These findings are in line with Adesoye and Amusa’s (2011) study which found that in Nigeria the distance program is also undertaken by male and female as well as the young and older adults. On the other hand, Boadi and Letsolo (2004) in a study conducted in Botswana found that majority of the students were female because of the flexibility of the program. The study also revealed that a significant number of respondents 79 (40%) preferred information that is available. This finding confirms an earlier study by Boadi and Letsolo (2004) who found that distance students in Botswana preferred information that is easily available. The implication is that information should always be available for the distance students due to the nature of the program.

It is obvious from the study that majority of the distance students lack the ability to search for information electronically and also lack basic library skills to retrieve information manually. This was evidenced by 53% and 36% rating by the respondents that their library skills and searching for information electronically are poor. The study further established that the students do not have the skills for searching for information in the library. This implies that students might not be able to utilize the resources in the library more effectively to enhance their studies due to their inability to search for information. This finding is similar to the findings of Thanuskodi (2012) who found that users rated their library skills and computing skills as "poor". It further came to light that respondents lack basic library skills so that they could easily retrieve information for their academic work. The implication is that respondents who did not have the skills would not make effective use of the resources in any library they find themselves. Again their lack of searching skills could hinder their retrieval of useful information to enable them conduct research and other academic activities demanding the use of information resources and again to satisfy a need or a requirement. This result corroborates Thanuskodi’s (2012) study conducted. His study revealed that respondents rated their searching skills not satisfactory. This implies that the majority of students would depend mainly on print information from their prescribed textbooks which may not be current as compared to the electronic resources.

It is also obvious that majority of the students do not use libraries to support their studies and other academic activities. This was evidenced by 60% indicating that they never used libraries to support their studies. A possible explanation for this may be that the lecturers or the instructors do not give them assignments that require the use of information resources in the libraries. It is noteworthy to mention that the university education is expected to equip the students with skills of inquiry and critical thinking and the libraries therefore enhance this. The use of information resources for independent study and learning makes the distance education program of the same standard and quality like the regular program. This finding supports a study conducted by Adetimirin and Omogbue (2002) who found that distance students were not using library because of their tight schedules which were fully occupied with lectures. This finding is, however, at variance with earlier studies by Oladokun, (2014),
Boadi and Letsolo, (2004), Sutherland (2000) and Mabawonku (2004). They all reported usage of various types of libraries by distance learners to support their studies.

The study also brought to light that the students do not use library materials to obtain information to enhance their studies. This finding depicts lack of use of library resources by respondents. It is regrettably to mention that only 2% of the respondents use library resources to obtain information. It is evident that majority of the students depend on their prescribed textbooks and lecture notes as their major sources for information. This implies that most distance students of University of Education, Winneba Study Centre go through the walls of the university without stepping foot in a library. Distance education has to be all embracing and comprehensive. It should be noted that acquiring learning experience through independent use of information resources are an integral part of the program. This is because the instructor and learner are separated in time or space; therefore, the use of library resources is unavoidable. The library promotes the acquisition of reading, inquiry and independent thinking through the provision of resources to support learning activities. The resources in the library are not meant for regular students alone but distance students as well. Again the resources in the library widen the scope of what the textbooks have provided. In the words of Kavulya (2004) “a degree without an in depth knowledge of the subject through investigative learning is questionable”. The finding is in agreement with the findings of studies conducted by Boadi and Letsolo (2004) and Mabawonku (2004). The countries studied by these authors were U.S, Botswana, and Nigeria. This finding of distance students not utilizing the library resources to their full potential is not different from what is happening in other countries, particularly in Africa. This finding however is contrary to a study conducted by Rowland and Rubbert (2001) and Khasseh et al. (2009). They found that distance students use information resources apart from the prescribed text supplied to them by the institutions.

The study further revealed that distance students preferred print format to electronic format. It is discernible that the respondents were more interested in print sources than the latter even though they were exposed to information communication technologies. Perhaps this could be attributed to the fact throughout their lives they have been used to mostly print as an information format. Moreover print format is easily accessible wherever one finds oneself whether there is electricity or not. The present finding corroborates the findings by Oladokun (2010). He found that off –campus students at the University of Botswana preferred print format to other format. The finding of this study is, however, contrary to the study conducted by Adesoye, 2011. He found that their information preference showed that they preferred both print and electronic format. The study finally revealed that reliance on study materials and lecture notes, coupled with lack of time hampered their information utilization.

CONCLUSION

The paper examines the information needs of distance learners. The result of the study revealed that distance learners of the study centre do not use the library to complement the prescribed textbooks given to them by the institution. According to them it is as a result of lack of time, they therefore depend heavily on the modules and their lecture notes as their only sources of information. In addition, the study revealed that the learners lack both library use and searching skills to enable them search for information in the library and again they prefer information in print format. The study further revealed that lack of time, dependence on study materials and lack of searching skills are the challenges hampering their information acquisition. This is a matter of concern, and therefore there is the necessity for library management as a matter of urgency, to ensure that these groups of students are given the necessary bibliographic instruction so that they would be able to search for information efficiently and effectively wherever they find themselves.
RECOMMENDATIONS

In the light of the above conclusion, the following recommendations are worth considering:

- Intensive efforts should be made by the library management of the University to provide bibliographic instruction on how to use the library and how to access and use electronic resources to enhance learning. This should be an annual affair just like how library orientation is organized for fresh students on the regular program.
- Tutors should also be encouraged to give assignments that would require the use of information sources in both print and electronic. This would indirectly encourage the students to consult reference sources in addition to their modules to complete their assignments. By so doing their skills could be developed.
- Library management in partnership with the Centre for Distance Education in the University should adopt a strategy to provide library services to distance learners comparable to the services it provides to the regular students. Thus, application of information technology in the delivery of services to distance should be a priority since distance students also have to access a range of library materials to accomplish their learning and research goals.
- The University Library, in collaboration with the distance education administrators, should negotiate for space in the public and school libraries to keep some reference and other library materials for the use of the learners. Currently, tutorials are held in hired premises in Secondary and Teacher education schools in the country, perhaps arrangements could also be made by the University Library in conjunction with the Head of the institutions also arrange so that some of the library materials could also be kept there for use by the learners.
- Efforts should be made by stakeholders, distance education administrators, and the library to run mobile library that would visit the study centers regularly. This could also be done with the support of the public library.
- The Library management in collaboration with distance education administrators to ensure that there are functional libraries in all the centers. These libraries should also be stocked with current materials relevant to the needs of the students.
- The University Library management could also collaborate with other public universities in the country, so that distance education students who are closer to the institutions could use the facilities at these institutions. For instance distance learners of Winneba study Centre who are closer to the University of Cape Coast and its environs could visit the library and use the resources to meet their information needs. Perhaps a place could be designated for the exclusive use of these learners could be established in all the public institutions.

BIO DATA and CONTACT ADDRESSES of the AUTHORS

Agatha Gifty LARSON is a Senior Assistant Librarian in IEDE Library in University of Education, Winneba. She has been working there for the past thirteen years and worked as the head of Reader Service for ten years. She has attended a number of International Conferences both Home and Abroad. She is Fellow of the Mortenson Centre for International Programs at Urbana Champaign, USA. She holds MA in Library and Information Studies from the University of Ghana.
Michael OWUSU-ACHEAW is the head of the Koforidua Polytechnic Library and has been working with the Institution since 2000. He holds MA in Library and Information studies at the University of Ghana and an Adjunct Senior tutor at the University of cape Coast Distance Education Program. He is a council member of the Ghana Library Association.

Michael OWUSU-ACHEAW
Koforidua Polytechnic,
Koforidua, Ghana
Library Department
Tel: +233 0208474482 / +233 0541394581
Email: oamicky2004@yahoo.com

REFERENCES


E-MENTORING FOR PROFESSIONAL DEVELOPMENT OF PRE-SERVICE TEACHERS: A CASE STUDY

Assist. Prof. Dr. Mehmet KAHRAMAN
Department of Computer Education and Instructional Technologies
Faculty of Education, Afyon Kocatepe University, Afyon, Turkey

Assoc. Prof. Dr. Abdullah KUZU
Department of Computer Education and Instructional Technologies
Faculty of Education, Anadolu University, Eskisehir, Turkey

ABSTRACT

This study focused on supporting the professional development of information technologies pre-service teachers with e-mentoring approach. The e-mentoring program was conducted in four basic phases; preparation, matching, interaction and finalizing. In the study, the data were collected via researcher journals, semi-structured interviews held with the participants, focus-group interviews and reflection reports written at the end of the program. The collected data were analyzed with the software of Nvivo 8 and divided into themes for presentation. The duration and frequency of interactions and the communication tools preferred differed from one matching to another. In addition, the interactions revealed gains professional development in terms of such areas as sharing knowledge and experience, guidance and goal setting, knowing more about the university and adaptation, easily access to counseling, developing self-confidence, developing communication skills, social and affective support, keeping one’s knowledge updated and reinforcement. It was seen that the e-mentoring program had positive influence on their professional development besides the formal education given to the participants. The e-mentoring program helped students, academicians and graduates share their knowledge and experience with each other and develop their social networks. The participants had the opportunity to view their career as a whole and received guidance regarding the career processes.

Keywords: E-mentoring, personal guidance, pre-service teachers, professional development

INTRODUCTION

The diversification of skills and knowledge needed in the academic, social and business life are rising expectations from educational institutions. As a result, discussions regarding how well traditional education can meet the postgraduate demands have led to new quests in educational institutions. The mentoring approach used historically to meet such demands and for individuals to develop their knowledge and skills in line with the goals they have set is in a developmental process as there is an increasing amount of research on this approach and still a hot topic (Headlam-Wells, Gosland & Craig, 2006; O'Connor et al., 2015). In this respect, the re-structured traditional mentoring can be regarded as a life-long learning approach that, as an electronic mentoring (e-mentoring), provides new opportunities and sources. It is important to question not just the extent to which individuals’ needs and the information provided in class environment overlap each other but also, more importantly,
whether the information has been acquired starting from the moment it is needed. Such questioning, which allows investigating how the knowledge and experience that the individual has found necessary yet failed to acquire in an educational institution will be obtained, is associated with the importance of mentoring (Kuzu, Kahraman & Odabasi, 2012).

MENTORING

Throughout the history, mentoring has been called with different names and applied in a number of fields. Mentoring is not a new concept; on the contrary, it is as old as the history of mankind. All people are in need of an advisor whom they share their problems with and whose views they ask for when they are in a difficult situation. That advisor mentors with his or her behavior and words, transfers his or her experience giving confidence and sheds light on problems. Thus, it could be stated that the application of mentoring in developing oneself in our culture dates back to quite old times. The trainers of princes in the Ottoman period as well as the Atabegs in the period of Seljuqs used to do the job of today’s mentors (Uyumaz, 2008).

In related literature, there is general acceptance regarding the positive contributions of mentoring applications to academic achievement, career development and personal development (Bierema & Merriam, 2002; Jacobi, 1991). Jacobi (1991) states that there is no common definition of mentoring, and the researcher, depending on the definition presented in literature, and makes a similar saying that defining mentoring is like a blind person’s defining an elephant. Sharing knowledge and experience in the process of mentoring is important. Perchiazzi (2009) states that the mentoring process is associated with the processes of tutoring, coaching and psychological counseling and it is a term covering all these concepts. In this respect, mentoring could be regarded not only as a process of learning and development covering the processes of tutoring, coaching and psychological counseling but also as a way of sharing one’s knowledge, skills and experience based on mutual trust in line with the personal and professional development goals of an individual.

E-mentoring

As a result of the integration of new technologies, e-mentoring is considered to be a flexible alternative (sometimes as complementary) besides the traditional face-to-face mentoring (de Janasz & Godshalk, 2013; Murphy, 2011; Shrestha, May, Edirisingha, Linsey & Burke, 2009; Single & Single, 2005). E-mentoring is also important because it allows sharing knowledge and experience independently of time and place and because it provides easy and different interaction methods free of social prejudices. E-mentoring not only removes the statute difference more easily but also provides flexibility regarding the response time and allows reaching more people when compared to face-to-face mentoring (Akin & Hilbun, 2007; Hunt, Powell, Little & Mike, 2013).

Electronic mentoring (e-mentoring) is also known as telementoring, cybermentoring, instant mentoring, distance mentoring, online mentoring or virtual mentoring. E-mentoring is conducted primarily with the use of electronic mail as well as with the use of other web-based and computer-aided tools. Clutterbuck & Lane (2004) state that effective application of e-mentoring requires computer literacy, appropriate computer equipment, internet access, effective communication skills, availability, arrangement of meetings, ensuring the privacy of the messages, willingness for feedback and establishing a sincere, honest and open environment.
E-mentoring is a newly-developing type of mentoring. Therefore, spread of beneficial applications will take time. In addition, there are problems experienced in matching the mentors with the mentees, in choosing the mentor and in maintaining the process (Poulsen 2013; Watson, 2006). In order to reach successful results in mentoring regarded as a process of solidarity and cooperation, interaction between individuals is essential and effective mentoring relationships are based on trust and trust is a key factor to successful mentoring (Kahraman, 2015). When viewed from this aspect, it could be difficult for parties to establish sincere and close relationships in the e-mentoring process. Therefore, e-mentoring is also applied as a support program in certain mentoring programs.

There are different options regarding the platform used for the e-mentoring module found in the center of the formal e-mentoring process. For this platform, where the e-mentoring process is coordinated, where interaction is established and where records are kept, it is possible either to choose one of the present software or to develop a new one. Besides choosing the platform, it is also important how to manage the e-mentoring process. It is important to provide support for the problems to be experienced both with the software and with the mentoring process. Therefore, while choosing any software, not only the basic and necessary features but also the technical support to be provided for the best execution of the process with least problem should be taken into consideration (Kuzu, Perchiazzi & Kahraman, 2012).

E-mentoring is certainly not an economical alternative to face-to-face mentoring but should be regarded as a flexible approach. The reason is that besides the cost of management, preparation, matching and evaluation found in the process of face-to-face mentoring, we will have to cope with such additional expenses of software and web-cost in the e-mentoring process. E-mentoring should be considered to be a cooperative learning approach that allows just-in-time, just-enough, just-for-you and synchronous or asynchronous sharing of knowledge and experience.

THE PROFESSION OF TEACHING AND PROFESSIONAL DEVELOPMENT

In our country, The Council of Higher Education has made education faculties responsible for teacher training. Professional development includes the processes that support the development of professional knowledge, skills, values and attitudes. Students, school administrators as well as parents will benefit from the developing professional behavior of teachers. Professional development is a process that starts with the pre-service period and continues with the start of teaching and with the in-service teaching period. Successful teachers are individuals who learn life-long and refine their skills throughout their development and who learn and apply new methods (Kuzu, 2014; Odabasi & Kabakci, 2007).

Today, the qualifications expected from a teacher have changed parallel to such developments as globalization, cultural and linguistic variety and fast access to information. In this respect, Tutkun and Aksoyalp (2010) point out that teacher training in the 21st century should be given at a multicultural and international level. Thus, as a vital element of social development and change, a teacher should be trained in a way to become sensitive to all the problems around, to put forward solutions to the problems and to be in a productive position.

Face-to-face mentoring has been conducted for a long time as a solution regarding professional development (Boreen, Johnson, Niday & Potts, 2009; Moir, Barlin, Gless & Miles, 2009; Pitton, 2006; Podsen & Denmark, 2006; Portner, 2008; Shulman & Sato, 2006; Strong, 2008; Trubowitz & Robins, 2003). Today, there are different applications related to the e-
mentoring process, which starts with teachers’ undergraduate years (Heirdsfield, Walker, Walsh & Wilss, 2008) and continues with their senior years at university (Knapczyk, Hew, Frey & Wall-Marenck, 2005) and with their first years in teaching (Gareis & Nussbaum-Beach, 2008; Villani, 2009). Studies on e-mentoring are applications developed for overcoming an important difficulty both in helping teachers continue their profession and in maintaining their professional development (Achinstein & Athanases, 2006; Gareis & Nussbaum-Beach, 2008, Klieger & Oster-Levinz, 2015). These applications allow fresh teachers to adapt themselves to the profession and help them find academic and social support (Heirdsfield, Walker, Walsh & Wilss, 2008).

RESEARCH METHOD

The present study, which focused on supporting the professional development of pre-service teachers with the help of the e-mentoring application, was designed as a holistic single-case study. The study was carried out in the department of Computer Education and Instructional Technologies at Anadolu University in the academic year of 2010-2011. In the study, commercial software was used as an e-mentoring platform. The software had a completely web-based structure.

Participants of the Study
The participants of the study were undergraduate students, postgraduate students and graduates from the department of Computer Education and Instructional Technologies at Anadolu University as well as volunteering academicians from the same department. The participants were determined with the purposeful sampling method. Together with the validity committee, the number of the users registered to the e-mentoring platform became 76. Of all the participants registered to the e-mentoring platform, 24 of them were mentors; 32 were mentees; and 16 were both mentors and mentees.

Data Collection Tools
In the research process, different data collection tools were used. These tools included researcher’s journal, application form, the logs in the platform, the audio-records of the validity committee, audio-records of the semi-structured interviews, audio-records of the focus-group interviews and reflection reports.

Data Analysis and Interpretation
The data collected were analyzed with the content analysis method, one of the qualitative data analysis techniques. For content analysis, first, the data were organized. Following this, the data were read again to get an overall view, and the common themes were gathered. Finally, the themes were supported with sample quotations (Creswell, 2009). In the study, for the content analysis method, the qualitative data analysis package program of NVivo 8.0 was used.

FINDINGS

Findings Regarding the Expectations from the E-mentoring Program
When the data collected via the researcher’s journals and via the participants’ responses in the semi-structured interviews as well as their responses to the application form regarding the e-mentoring program were examined, such themes as sharing knowledge and experience, socialization, learning mentoring and guidance and academic and career development were obtained. And some insights for these findings are as follows below.
Sharing Knowledge and Experience
Sharing knowledge and experience was one of the overall expectations of the participants from the e-mentoring program who reported that besides theory, practical skills were also necessary in the profession of teaching. The participants stated that they would be able to learn more easily via the knowledge and experience of well-educated people and that they would thus develop themselves more rapidly with the help of such mentoring. It was pointed out that e-mentoring programs would remove certain limitations of face-to-face interaction and facilitate sharing knowledge and experience. According to the participants, the e-mentoring program would allow them to overcome the communication barriers that they were likely to encounter at any time of the day while trying to contact with people on face-to-face basis.

Academic and Career Development
The participants gave special importance to such subjects as receiving help during their academic development, receiving help with the selection of the courses and increasing the achievement level in courses. Another point important in academic development is related to the recent developments in computer software and equipment. In this respect, the participants reported that they were willing to learn computer package programs as well as such subjects as software-related programming, coding, graphic design and web-design. In addition, the participants gave special importance to career development and expressed their expectations regarding career development and post-graduate education. They also mentioned their willingness to get informed about scholarships. As an expectation, the participants who considered studying abroad wanted to be informed not only about Erasmus exchange programs but also about international scholarships.

Learning Mentoring and Guidance
Almost all the participants stated that they had never heard of the concept of mentoring and that they raised their awareness of this subject thanks to the program. In this respect, the participants reported that they wanted to develop their counseling and guidance skills within the scope of the e-mentoring application.

Socialization
The participants expressed their expectations regarding socialization and stated that especially certain out-of-class activities would be beneficial for their own development. In this sense, it was reported that meetings and symposiums would contribute to socialization as well as professional development. In addition, they also emphasized the need not only for sharing their happiness and sadness in their lives but also for receiving support regarding academic career and courses in the e-mentoring process.

When the expectations of the participants were examined, it was seen that their expectations differed in line with their special needs depending on their own situations. After determining the general and special goals of the e-mentoring program, the necessary arrangements should be made in a way to meet the demands and needs of the participants. As structured mentoring programs are arranged in line with the needs and expectations of participants and of the organization conducting the program, each mentoring program has its own originality.

Findings Regarding the Organization of the E-Mentoring Program
In the present study, while organizing the e-mentoring program, four phases were taken as basis: preparation, matching, interaction and finalizing. The preparation phase started with the related decision taken in November in 2009 and continued till the phase of matching carried out in February in 2011. A workshop on e-mentoring was organized on the 11\textsuperscript{th} of
June in 2010 in the department of Computer Education and Instructional Technologies at Anadolu University. At the end of the workshop, participation certificates were given to all the participants in the workshop.

The most important component of e-mentoring is to choose an appropriate platform that will execute and manage the process. At the end of the examinations, commercial software was chosen as the e-mentoring platform. The participants were gathered in the seminar hall of the Education Faculty at Anadolu University on the 23rd of February in 2011, and they reported in writing to the coordinator whether they wanted to the role of a mentor or a mentee. In line with their demands, learning partnerships were conducted by the coordinator on the software.

As the semi-structured mentoring approach was used for the application, the general steps in the execution of the program were determined, and not much intervention was performed on the execution of the process. The management and coordination of the e-mentoring process were executed by the researcher and by the thesis supervisor. In addition, the suggestions put forward by the validity committee established following the matching phase were quite beneficial for the management.

The study continued till the end of the Spring Term in 2011. With the end of the courses, the participants were asked to write down their reflection reports to allow them to share their impressions and overall evaluations regarding the e-mentoring process. The reflection reports delivered by the participants provided important findings regarding the overall evaluation of the e-mentoring process.

Findings Regarding the Interactions in the E-Mentoring Process
Although there are a number of factors determining a productive interaction in the e-mentoring application, the most prominent among them is the appropriate learning partnership (matching) of the mentors and the mentees. The interaction that occurred between the phases of matching and finalizing was established with different communication tools in different environments.

Examination of the interactions of the information technologies pre-service teachers in the e-mentoring process revealed such dimensions as the duration and frequency of the interaction, the communication tools favored by the participants to communicate with each other and the solution to the time inconsistency. When the duration and frequency of the interactions of the participants in the e-mentoring program were taken into consideration, it was seen that there were cases specific to each matching. It could be stated that the mentors and the mentees interacted with each other when they needed.

The e-mentoring platform used included asynchronous communication tools based on a forum or e-mail. Therefore, the participants used such different communication tools as Facebook, MSN, Skype and mobile phone in each matching.

In addition, a majority of the participants stated that they wanted to establish face-to-face communication and that face-to-face communication was more effective in our culture. Some of the participants reported that they wanted as much face-to-face interaction as possible besides the electronic environment. The participants found it beneficial that the special interaction area provided for the mentor and the mentee by the e-mentoring platform helped them pursue their goals more easily.
One of the important advantages of the e-mentoring application was that it put forward a solution to the problem of time limitation. Especially out of the working hours and at weekends, the e-mentoring platform provided important opportunities for communication. In addition, the platform created an environment which allowed the participants to express their thoughts that they would abstain from doing so on face-to-face basis. The participants reported that they updated and reinforced their knowledge.

Findings Regarding the Gains from the E-Mentoring Program

The gains obtained from the e-mentoring program in terms of professional development and the findings obtained via the interpretation of the data are presented in Figure 1.

The gains obtained from the e-mentoring program in terms of professional development and the findings obtained via the interpretation of the data are presented in Figure 1.

Figure: 1
Gains from the E-Mentoring Program

It was seen in the e-mentoring program that different subjects were raised regarding the professional development of the participants for each mentor-mentee matching in the interaction process. Some of these subjects could be said to be consistent across all the participants. Especially in common forum areas, all the participants shared regarding different subjects in line with their own interests and hobbies especially in common forum environments. These sharing helped create a pool of information within the department.

The fact that the participants in the program were those ranging between freshman students and academicians from different career steps allowed the students and the teachers as well as the academicians to share their knowledge and experience. The e-mentoring program increased the interaction between the classes in the department. In addition, this interaction facilitated the adaptation process of the new-comers to the department. The e-mentoring
application was reported to make it possible to create a more productive environment for the counseling system executed at universities.

Feedback was also provided regarding the fact that the participants had two-way interactions in the e-mentoring process. The e-mentoring platform led to one-on-one socialization between the mentor and the mentee and created an environment which both the graduates and academicians contributed to.

Findings Regarding the Difficulties Experienced
When the difficulties and problems experienced in the e-mentoring program were examined, it was seen that there were different aspects with respect to the researchers/organization, mentors and mentees. When viewed from the perspective of organization or of coordination, some of the difficulties were experienced as the researchers not only organized and coordinated the process but also executed the research process. Therefore, undertaking the responsibilities of a group in many mentoring programs has always become a difficulty going on throughout the process.

Choosing software for the e-mentoring platform constituted an important problem. Initially, the Docebo learning management system was preferred as the software. It was seen in the preparation phase that the software would not be sufficient to support the process. For this reason, commercial software was chosen as the e-mentoring platform. However, various problems and difficulties were experienced regarding this software in time.

The language of the platform was one of the prominent difficulties experienced by the participants regarding the software used as the e-mentoring platform. The most important aspect of the e-mentoring software was that it was web-based commercial software developed especially for the e-mentoring process. However, it did not support any other language except for English. The initial intention was to adapt it into Turkish, yet it was seen as a result of the correspondences with the related firm that this adaptation would not be possible in a short time. Depending on the fact that such programs as Flash, Photoshop and other similar programs used in courses in the department of Computer Education and Instructional Technologies supported only English Language, the software was used as it was. Although the participants liked the sub-structure of the software used, they suggested it to be conducted via Facebook for easier access. The messages sent for warning or information purposes regarding the interaction in the e-mentoring platform had positive influence on some of the participants, while some other participants found these scripted messages irritating.

Due to the technology dimension of the e-mentoring program, its application in the department of Computer Education and Instructional Technologies was thought to facilitate the e-mentoring process. However, the difficulty experienced by the participants in using the platform did not confirm this thought.

The fact that the most critical phase of mentoring was the phase of matching and that there was on-going search for best-matching was one of the most important difficulties experienced by the researchers. In order to overcome this difficulty, first, the participants were given a detailed application form to obtain information about them. There were different options regarding how to do the matching. Matching conducted by coordinators in line with the application forms in hand is a favored method in such formal mentoring applications. It could also be preferable for mentees to choose from the pool of mentors or for mentors to choose from the pool of mentees. Moreover, it is also possible for the software to do the matching in line with the profile information about the participants within the
system. As the semi-structured mentoring approach was preferred, the participants were gathered at the beginning of the Spring Term in 2011, and the participants were asked for their views about the matching. Following this, those who wanted the role of a mentor or of a mentee reported their demand to the coordinator in writing. In line with their demands, the learning partnerships were conducted by the coordinator via the software. The expectation that the participants would demand the same mentor and that their preferences overlapped one another caused difficulties in meeting the demand during the matching.

In addition, at the meeting, it was not possible to match all the participants. Besides those who were some absent at the meeting, there were also others who failed to decide on their mentors. For a few weeks, the researchers contacted personally with those who were not matched. In this way, guidance was provided for appropriate selection of mentors and mentees. Despite all these, there were still participants who were not matched in the system.

Another subject was the mentoring model to be applied. At the beginning, the intention was to conduct one-on-one peer mentoring. However, during the on-going process, besides the one-on-one peer mentoring, gradual mentoring was conducted as well. In addition, as the mentoring program was applied for the first time, each mentee was asked to choose only one mentor.

When the difficulties experienced in the interaction process were examined specifically in each matching, it was seen that individuals with a different cultural structure had different reflexes against the same application. The expectation differences between the mentors and the mentees influenced the interactions negatively. Another subject to consider is that we start a number of activities emotionally in a social sense and then lose our necessary motivation.

When the e-mentoring program was evaluated in general, one of the difficulties experienced was seen to be related to contacting with the participants. For communication with the participants, the e-mentoring platform announcements, the private-messaging system of the platform and the e-mail account of mentor.empower@gmail were used. Moreover, in cases when these messages were not replied to, SMS and phone were used. During the interviews held with the participants, it was seen that some of the participants had difficulty accessing the Internet. It was also observed that some of the participants did not check their e-mail accounts for more than a week and did not log in the platform.

Although mentoring programs are shaped based on a certain need, it is important to maintain the process. However, the mentoring process is a dynamic process based on human relationships. In this process, it is difficult to raise the necessary consciousness and to maintain this consciousness. However much deficiency the program organized has, it is essential for participants to be willing to take active role.

DISCUSSION

Mentoring is a social learning method as old as the history of mankind. Today e-mentoring through the use of new synchronous and asynchronous communication tools is still a means for professional development. Establishing effective mentoring programs maximize the teaching and learning opportunities in and out of formal education. This research is an attempt as a semi structured e-mentoring program for professional development of pre-service teachers.
As Klieger & Oster-Levinz, (2015) state a mentoring program influenced by the expectations of schools, teacher education institutions as well as student teachers. Accordingly before starting the e-mentoring program expectations of parties are specified by the participants’ responses with the interviews. And as a result regarding the expectations from the e-mentoring program sharing knowledge and experience, socialization, learning mentoring and guidance, academic and career development were obtained. de Janasz & Godshalk (2013) clarified that the satisfaction in formal mentoring programs may be due to expectations at the start of the e-mentoring. Thus mentoring process is require mutual expectations of each other (Poulsen, 2013). For this reasons it may be considered to look for comprehensive expectations of organization, mentees and mentors and all involved parties for the future works.

In total there are many gains from the e-mentoring program as guidance and setting goal, adaptation to university, developing self-confidence, developing communication skills, social and affective support, updating and reinforcing one's knowledge. Some of these gains are not the case in every partnership. Such as adaptation to university is the case for just the junior mentees. The social and affective support finding is coherent with Desimone et al., (2014) emotional support for novice in-school and out-of-school environments.

In addition, our findings have highlighted the fact that the interaction occurred between the phases of matching and finalizing was established with different communication tools in different environments. And we identified that the mentors and the mentees were interacted with each other when they needed. This supports previous research results with Son & Kim (2013) that interactions are developmental and mutually beneficial for partnerships.

Also the results of our study suggest that the mentoring process is a dynamic process based on human relationships. As structured mentoring programs are arranged in line with the needs and expectations of participants and of the organization conducting the program, each mentoring program has its own originality. Thus this supported by Kemmis, Heikkinen, Fransson, Aspfors, & Edwards-Groves (2014) with their examination of quite different practice architectures in the form of different material-economic, social-political and cultural-discursive arrangements.

During the e-mentoring program also some difficulties experienced. Specifically in each matching; it was seen that individuals with a different cultural structure had different reflexes against the same application. This is supported Shpigelman, C.-N., & Gill, C. J. (2013) view; as mismatch within the dyad, in which one or both parties mismatch in values, work styles, and/or personality.

The findings of this study are not generalizable, the perspectives and experiences emerged may be transferable to similar situations and similar settings.

CONCLUSION AND SUGGESTIONS

Due to the new technological developments, the current understanding of education makes out-of-class learning and life-long learning increasingly necessary. It is considered by field experts to be important to have a mentor for such reasons as supporting individuals’ personal and professional development, guiding their career and helping them adapt to new environments (Kuzu & Akbulut, 2013).
The program has become a beneficial support system in which mentors transfer their knowledge and experience to mentees and in which mentees can increase their readiness levels following their university education. In addition, it was also observed that sharing starting with this process will transform into lasting friendships.

Information technologies pre-service teachers are supposed to have to make continuous professional development necessary parallel to the developments in the field of computers. Teachers’ professional development applications are regarded as a continuous, infinite process open to change and development.

It is possible to overcome the problems and difficulties regarding the e-mentoring program. However, in contexts where human relationships are important, it should be remembered that one could encounter with different problems and difficulties. In general, it could be stated that the e-mentoring program raised awareness of the subject in the department. Maintaining the program for long years is thought to be beneficial for all parties.

Teachers’ professional development applications should be regarded as a process open to continuous development, and appropriate arrangements should be taken into consideration in the e-mentoring process. Structured face-to-face mentoring studies in Turkey have remained limited. Today, especially the web-based online learning environments have become varied, and search for effective use of these environments has increased. Parallel to these developments, it could be stated that studies on e-mentoring will be one of the subjects that researchers will get engaged with for a long time.

Authors’ Note: This paper is based on the first author’s PhD dissertation at the Anadolu University in Turkey.

BIODATA and CONTACT ADDRESSES of the AUTHORS

**Mehmet KAHRAMAN**, Ph.D. is an assistant professor in Computer Education and Instructional Technologies Department at Afyon Kocatepe University Afyonkarahisar, Turkey. He received his PhD in Computer Education and Instructional Technologies from Anadolu University in 2012. He has managed the EU Education & Training projects since 2004. He involved in opening of ECDL Test Centers and holds relevant computer certificates. His research interests are e-learning, 21st century skills, distance education, project-based learning, digital fluency and e-mentoring.

Assist. Prof. Dr. Mehmet Kahraman
Afyon Kocatepe University,
Faculty of Education,
Department of Computer Education and Instructional Technologies,
ANS Campus, Afyonkarahisar, TURKEY
Phone: +90 272 246 33 12 ext: 20380
Mobile: +90 505 821 90 15
E-mail: kahraman@aku.edu.tr
Abdullah KUZU, PhD. is an associate professor in Computer Education and Instructional Technologies Department at Anadolu University Eskişehir, Turkey. He received his PhD in Computer Education and Instructional Technologies from Anadolu University in 2005. He conducted action research projects on online learning and offers courses on qualitative research design and multimedia learning. His studies resulted in many articles and multiple chapters in published books. He is currently manager, researcher and adviser in a number of projects focused on e-mentoring, computational thinking, STEM and robotic use in educational settings.

Assoc. Prof. Dr. Abdullah KUZU  
Anadolu University  
Faculty of Education  
Department of Computer Education and Instructional Technologies,  
Yunusemre Campus, Eskişehir, TURKEY  
Phone: +90 222 335 05 80 ext: 1925  
Mobile: +90 505 401 29 40  
E-mail: akuzu@anadolu.edu.tr

REFERENCES


A MIXED METHODS ANALYSIS OF THE EFFECT OF GOOGLE DOCS ENVIRONMENT ON EFL LEARNERS’ WRITING PERFORMANCE AND CAUSAL ATTRIBUTIONS FOR SUCCESS AND FAILURE

Dr. Zari Sadat SEYYEDREZAIE  
English Department  
Ferdowsi University of Mashhad, International Campus, Iran

Dr. Behzad GHONSOOLY  
English Department  
Ferdowsi University of Mashhad, Iran

Dr. Hesamoddin SHAHRIARI  
English Department  
Ferdowsi University of Mashhad, Iran

Dr. Azar Hosseini FATEMI  
English Department  
Ferdowsi University of Mashhad, Iran

ABSTRACT

This study investigated the effect of writing process in Google Docs environment on Iranian EFL learners’ writing performance. It also examined students’ perceptions towards the effects of Google Docs and their perceived causes of success or failure in writing performance. In this regard, 48 EFL students were chosen based on their IELTs writing test scores. During the treatment, the students were taught how to write a formal five-paragraph essay in the class, but they were supposed to practice writing process and give feedback to their peers’ essays through Google Docs. At the end of the treatment phase, the participants received another sample of IELTs writing test (posttest). Moreover, 20 participants were interviewed for their perceptions regarding the causes for their success and failure and the influence of Google Docs on their writing performance. The analysis of a Paired-Sample t-test revealed that Google Docs played an effective role in improving students’ writing performance. In addition, the analysis of interview revealed that the students perceived both internal and external causes for their success and failure; but in case of failure, internal factors were cited more often than external ones. Also, it was revealed that students generally showed positive attitude towards the implication of Google Docs as a factor leading to success in their writing performance.

Keywords: Attribution theory, google docs, blended learning, writing performance

INTRODUCTION

Prevalent application of Internet technology has influenced all aspects of life. Recently, online instruction has attracted considerable attention in the educational setting (Picciano, 2002). Consequently, it is considered as an important and beneficial factor in language teaching and learning (Smith, 2003); because online instruction provides EFL students with opportunities to practice English language in an inspiring environment (Zeiss & Isabelli, 2005).
In this regard, new technologies like wikis, blogs, podcasts, and Google Docs are becoming popular in EFL/ESL context, especially in writing classes (Pan & Sullivan, 2005). Among these user-friendly technologies, Google Docs appears to have suitable features and characteristics that can facilitate the peer feedback process for writing classes (Brodahl, Hadjerrouit, & Hansen, 2011).

In both traditional and online learning classrooms, predicting the learners’ causal attributions for their success has been considered as an important factor. As an approach to predict academic behavior, contemporary psychological research has focused on attribution theory which is defined by Weiner (1986) as people’s perceptions about themselves and the way in which they attribute their success and failure. According to Williams and Burden (1997, cited in Hashemi & Zabihi, 2011), the attributions people make about their success and failure have an impact on their interest to accomplish future tasks. For instance, the extent to which people believe that their success is due to their own effort, they will expect to achieve the same outcomes the next time they approach the same tasks. On the contrary, if they perceive their lack of ability or lack of effort as causes of their failure, they will possibly avoid situations in which they are supposed to do similar tasks because of not failing again. Weiner (1986) suggested four sets of attributions including ability, effort, task difficulty, and luck, to which people tend to hang on their perceived success and failure in the academic setting. These attribution sets are in relation with three dimensions of causality, namely locus (internal or external), stability, and controllability (Weiner, 2006).

Learners’ causal attributions for success and failure can be affected by different types of feedback they receive (Amorose & Weiss, 1998). Regarding writing skill, many teachers and parents believe that writing failure has an impact on learners’ developing foreign language and their causes attributed for failure in their later writing performance; in these cases, some teachers considered corrective feedback (especially peer feedback) as a beneficial way to more positively influence learners’ attitudes towards their success and failure (Amorose & Weiss, 1998).

Since a new version of Google Docs (i.e. Google Drive) is becoming widespread in writing classes abroad, and few Iranian EFL teachers are familiar with this tool and use it as a file hosting service like Dropbox, this study aimed at illustrating whether Google Docs is effective in EFL writing classes or not. Although the use of Google Docs in second/foreign language writing instruction has been previously studied, few researchers have considered the effects of this online tool implemented with peer collaboration, on writing performance and attributional beliefs of EFL learners in blended instruction.

Therefore, the purpose of the present study was to investigate the effect of Google Docs-based writing instruction on Iranian EFL learners’ writing performance. In addition, this study aimed at considering Google Docs-based students’ perceptions toward the effects of Google Docs and their causes of success or failure in their writing performance. To fulfill the purpose of the present study, the following research questions were investigated:

- Does Google Docs-based writing instruction have any significant effect on Iranian EFL learners’ writing performance?
- What do Google Docs-integrated students perceive as causes for their success or failure in their writing performance?
- What are Google Docs-integrated students’ perceptions towards the effect of Google Docs on their success or failure in their writing performance?
THEORETICAL FRAMEWORK

The Application of Google Docs in EFL Writing Classes

Google Docs, as an online collaborative writing tool, allows applicants to edit their writings synchronously and collaborate with each other, and has the potential features to be applied in the writing classroom (Chu, Kennedy, & Mak, 2009). In his study, Hardison (2012) mentioned that Google Docs, as a beneficial tool, helps EFL teachers to inspire students to express their ideas freely and comment on their peers’ writing for improvement. Also, the finding of Spinuzzi’s (2007) study revealed that the features of Google Doc are suitable for cooperative activities because it provides students with opportunities to see their peers’ work and write collaboratively. Moreover, the findings of Blau and Caspi’s (2009) study indicated that their students had positive attitude towards writing collaboratively rather than writing individually in an online environment.

Perceived Attributions in Second and Foreign Language Contexts

Generally, people have a natural tendency to explore the reasons for their success and failure in life and academic context. Specifically, the factors to which individuals attribute these success and failure play an effective role in future tasks and actions in EFL learning context (Siegel & Shaughnessy, 1996). Williams, Burden, Poulet, and Maun (2004) explored the causes students attributed their success or failure to; the findings of their study indicated that the learners’ most frequent causes attributed for success or failure, were effort, strategy, ability, task, teacher, interest, and peers. Also, Williams, Burden, and Al-Baharna (2001) examined attributions of students from Bahrain for their success and failure in English language learning, and found that the students’ most common causes for success, were practice, family/teacher support, exposure to the foreign language and a positive opinion; on the other hand, inappropriate instructional methods, inadequacy of family/teachers’ support, and a negative point of view were the most frequent causes for failure. Moreover, in their study, Pishghadam and Zabihi (2011) explored the relationship between Iranian EFL learners’ causal attributions and their English language achievement. Their findings revealed that learners who attributed their success and failure to internal factors and found themselves responsible for their performance, demonstrated higher levels of achievement. In addition, Hsieh and Schallert (2008) investigated the relationship between EFL causal attributions and learners’ achievement. The results of their study revealed that ability attribution was an indicator of EFL learners’ achievement.

METHODOLOGY

Participants

The participants of this study were 48 Iranian male and female EFL sophomore students. Their age ranged from 19 to 27 and were all chosen from two branches of Islamic Azad University, including Gorgan and Aliabad Katool branches. The participants had enrolled in this blended writing program as a complimentary course. They were all sophomore students, because as a requirement, they should have passed the two introductory courses to Writing (Writing Courses 1 and 2), and also Advanced Writing in order to have enough background knowledge for writing an essay.

Instrumentation

IELTS Writing Proficiency Test

A sample IELTS writing test which was revolved around the topic “unhealthy diet”, was administered to the participants for both homogenizing the participants and as a pretest to evaluate their writing proficiency level one day before the first session. The result indicated that it had a reliability of .89. At the end of the term, another sample IELTS writing test revolved around the topic “competitiveness in society” was used as the posttest to evaluate the writing performance of the participants.
Weir’s Rating Scale
An analytic rating scale by Weir (1990, cited in Weigle, 2002) comprising seven aspects of writing including relevance and adequacy of content, cohesion, compositional organization, adequacy of vocabulary for purpose, grammar, and mechanical accuracy (regarding punctuation and spelling) was used for the purpose of rating the participants' performance on their drafts of essay-writing task. The band scores for each of these aspects of writing was 0-3. In this study, in order to assess the students' writing performance on the basis of Weir’s rating scale, two raters were chosen. For evaluating the inter-rater reliability, 20 percent of the writing essays of students (IELTS writing as a pretest) were randomly chosen and were given to them separately. The inter-rater reliability for the two raters who rated the students' writings administration is .81 (P < .05).

Attributional Interview Questions
In order to find the answer to the qualitative research questions of this study, a semi-structured interview was conducted. The interview included 5 questions, which elicited the students' perceptions toward the impact of Google Docs on their success or failure in writing; also, these questions provided the reasons the Google Docs-based students attributed their success or failure in writing performance. To conduct this part of the study, 20 students were interviewed at the end of the term after having the post-test. The interview was conducted in Persian. All interviews were recorded and transcribed by the researcher.

Procedure
To carry out the quantitative part of the study, the following procedure was pursued. Firstly, a piloted sample IELTS writing test was administered to all sophomore students in order to select a homogeneous group of participants; as a consequence, 48 EFL students were chosen. During a 5 month treatment, the students were taught how to write a formal five-paragraph essay in a face-to-face class, but they submitted their essays, received feedback from their peers, and chatted with the teacher as a way of receiving her support via Google Docs.

The students were divided into 6 groups of 8 students in order to exchange comments on each other’s essays. Each group was asked to read and comment on their group members’ essays on the basis of the analytic rating developed by Weir (1990, cited in Weigle, 2002). After the students had provided their comments on their peers’ essays, the teacher gave feedback on their comments which might be incorrect or incomplete so that the students could receive correct feedbacks on their writings. At the end of the term, the students were given another sample IELTS writing test as a post-test. In order to assess the students' writing performance, two raters who were both experienced teachers were chosen. For evaluating the inter-rater reliability, the result showed that it had a reliability of .81.

To carry out the qualitative phase of the study, at the end of the term, the learners were interviewed for their perceptions of success and failure about their English writing performance; besides, their ideas about the influence of Google Docs on their writing performance to see whether they find this environment as a reason for their success or failure in English writing test. To provide students’ insight on Google Docs environment from an attributional perspective, 20 students were selected for interview. These interviews were all conducted in the students’ mother tongue which was Persian, and all recorded and transcribed for further description, discussion, and analysis.
RESULTS

In order to have a homogeneous group of participants, a piloted version of IELTS writing test was administered to the sophomore students.

Table 1
Descriptive Statistics for the IELTS Writing Test Used for Homogenization

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
<th>Skewness</th>
<th>Error of Skewness</th>
<th>Kurtosis</th>
<th>Error of Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>IELTS</td>
<td>48</td>
<td>10.00</td>
<td>17.00</td>
<td>13.41</td>
<td>1.9660</td>
<td>3.8651</td>
<td>-.075</td>
<td>.143</td>
<td>-.238</td>
<td>.300</td>
</tr>
</tbody>
</table>

As can be seen from the above table, the mean and standard deviation equaled 13.41 and 1.96 respectively. Accordingly, 48 participants who scored one standard deviation above and below the mean constituted the participants of the present study. As the table shows, the skewness value turned out to be -.075 and the standard error of skewness was .143. Since this figure fell within -1.96 and +1.96, it was concluded that the distribution was normal.

Before rating the writing performance of all students, 20 percent of the essays was rated, based on an analytic rating scale by Weir (cited in Weigle, 2002), by two raters and the inter-rater reliability was estimated (Table 2).

Table 2
Inter-rater Reliability of the Two Raters of the Writing Pretest

<table>
<thead>
<tr>
<th>Rater 1</th>
<th>Rater 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson correlation</td>
<td>.803&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Sig (2.tailed)</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>10</td>
</tr>
</tbody>
</table>

<sup>a</sup> Correlation is significant at the 0.05 level (2-tailed)

As Table 2 demonstrates, the inter-rater reliability for the two raters who rated the students’ writings is .80 (Sig. value smaller than .05) representing that there was a significant agreement between the two raters.

To investigate whether there is any statistically significant difference between pre-test and post-test writing scores of Iranian EFL learners who are exposed to blended writing instruction (Google Docs-based and face-to-face writing instruction), the participants' scores were calculated and analyzed. The descriptive statistics of pre- and post-test writing scores of students has been illustrated in Table 3.

Table 3
Descriptive Statistics of Pre- and Post-Test Writing Scores of Google Docs-based Learners

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td>pretest</td>
<td>13.41</td>
<td>48</td>
<td>2.53</td>
</tr>
<tr>
<td>posttest</td>
<td>16.34</td>
<td>48</td>
<td>2.93</td>
<td>.423</td>
</tr>
</tbody>
</table>

In order to see whether the difference between the mean scores of EFL learners before instruction (M=13.41, SD=2.53) and after instruction (M= 16.34, SD= 2.93) reported above is statistically significant, a Paired Sample t-test was used (Table 4).
Table: 4
A Paired Samples T-Test of Pre- and Post-Test Writing Scores of Google Docs-based Learners

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>Mean Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair1 pretest</td>
<td>-2.93</td>
<td>1.18</td>
<td>.170</td>
<td>-3.27</td>
<td>-2.55</td>
<td>-17.23</td>
</tr>
</tbody>
</table>

As the above table indicates, the existing significant value (.000) is smaller than the significance level (.05). In other words, learners’ writing performance were significantly improved after receiving instruction in Google Docs environment.

Analysis of the Results of the Qualitative Research Questions
The second and third research questions of this study focused on investigating the students’ perceptions towards the causes which led to their success or failure in their writing performance; also, the effects of Google Docs on their success or failure in their writing performance. Therefore, in order to find the answer to these questions, a semi-structured interview was conducted by the researcher. For this purpose, 20 students were selected and interviewed at the end of the term.

Describing the Results of the Interview Questions
The interview included five questions and it was conducted in the students’ mother tongue. All the interviews were recorded, transcribed, and reanalyzed thoroughly and for each question the main themes were extracted and presented in a table with the degree of reference.

Question 1: Did you enjoy the writing process in Google Docs? Why/why not?

Table: 5
Themes of the First Interview

<table>
<thead>
<tr>
<th>Themes</th>
<th>Number of Students</th>
<th>Percentage of the Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. At the beginning of the term, writing process in Google Docs was not enjoyable but gradually they got used to it and they found it very interesting.</td>
<td>12/20</td>
<td>60%</td>
</tr>
<tr>
<td>2. They like this writing environment and from the beginning they found Google Docs enjoyable.</td>
<td>6/20</td>
<td>30%</td>
</tr>
<tr>
<td>3. They did not like this writing process and still they do not like it, but in a way, they thought it was interesting.</td>
<td>2/20</td>
<td>10%</td>
</tr>
</tbody>
</table>

In answering the first question, 60% of the students stated that, at the beginning of the term, they did not like writing essays in Google Docs for each session and they thought it was very difficult for them to do writing assignments in an online environment. They also added that in spite of the extra instructional sessions on Google Docs, they found this environment useless, because they had never had such an experience; but gradually they considered it as a part of the classroom schedule and at the end of the term, they found Google Docs very interesting and helpful for their writing improvement.
At the beginning, Google Docs was not interesting for me but at the end of the term, I was used to Google Docs, and involving in Google Docs made me motivated to write more and spend more time in this online environment.

Interview sample excerpt 1, Informant 1, May 2015

Another group of the students (30%) mentioned that they liked working with online technology (tools) very much and from the beginning of the term, they enjoyed writing in Google Docs. They also wished they had the same thing for all their classes because it helped them learn a lot and they did not waste any time in learning this skill.

I like this writing environment (Google Docs) and we use it to submit our essays and receive our peers’ comments. Other writing courses were not the same. They were based on just writing, rote learning, memorizing and other ways.

Interview sample excerpt 2, Informant 2, May 2015

The final group of these students (10%) stated that they did not like writing at all and they still do not like practicing writing; but they believed they learned a lot from the online writing environment and it was somehow interesting for them.

I don’t say that this online writing environment was bad and I also enjoyed some features of Google Docs. But generally I think in learning English as a TEFL student, it is enough to learn how to speak in English, and only elementary level of writing would be enough.

Interview sample excerpt 3, Informant 3, May 2015

Question 2: How did you find the writing instruction via Google Docs? (helpful or waste of time) Did it lead to success/ failure (improvement) in writing performance?

Table: 6
Themes of the Second Interview

<table>
<thead>
<tr>
<th>Themes</th>
<th>Number of Students</th>
<th>Percentage of the Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. At the beginning, they thought writings through Google Docs were waste of time, but at the end, they found them helpful.</td>
<td>11/20</td>
<td>55%</td>
</tr>
<tr>
<td>2. They found Google Docs very helpful for learning from the beginning.</td>
<td>7/20</td>
<td>35%</td>
</tr>
<tr>
<td>3. They found Google Docs helpful but they think they could use the time in better ways for learning</td>
<td>2/20</td>
<td>10%</td>
</tr>
</tbody>
</table>

Considering the answers to this question, students’ ideas were classified as three different themes. A group of 55% of the students believed that, at the beginning they thought this online environment (Google Docs) was useless. But at the end of the term, they thought this writing environment was very helpful for learning the writing skill by having access to additional links including new phrases and vocabularies related to topics of the essays.

Well at the beginning, I didn’t write essays very well and carefully because I thought that we will just write them and you and my peers won’t spend time in the online environment (Google Docs) on reading my essays, but after some sessions that you and my peers read them carefully and wrote many things on my documents, I understood that I should work on them. Now I think Google Docs was very helpful and inspired me to work more on writing and write better essays.

Interview sample excerpt 4, Informant 4, May 2015
Another group of 35% of them mentioned that from the beginning of the term, they found Google Docs very helpful and enjoyable and they wished they could use it for all their classes.

*I like working with technology very much; and consequently, I enjoyed writing process in the online environment, such as Google Docs. Google Docs improved our writing a lot and I think we should not at all say that learning writing skill in Google Docs wasted our time.*

Interview sample excerpt 5, Informant 5, May 2015

Finally, 10% of the students stated that they did not consider writing process through Google Docs useless and a waste of time and they knew that they learned many new things, but they believed they could learn those new points in other ways, apart from online environment.

*I don’t believe spending time on writing in Google Docs wasted my time and energy. And I reckoned that I learned some new things in Google Docs. However, since I don’t like working with technology generally, I prefer to learn and practice writing in other instructional environments.*

Interview sample excerpt 6, Informant 6, May 2015

**Question 2.1: If it led to success (improvement), how did Google Docs assist you in your writing performance?**

<table>
<thead>
<tr>
<th>Themes</th>
<th>Number of Students</th>
<th>Percentage of the Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>They expressed they benefit from Google Docs which provided them with opportunity to share ideas and work collaboratively with their peers. (Collaborative learning).</td>
<td>10/20</td>
<td>50%</td>
</tr>
<tr>
<td>They found that Google Docs was an effective way to improve their writing by increasing interaction between teacher and them, through its changing feature. (Engaged learning)</td>
<td>7/20</td>
<td>35%</td>
</tr>
<tr>
<td>They thought that Google Docs grows their sense of responsibility of improving their writing essays and discovering their own mistakes by paying attention to their group members' comments, and looking at the drafts of other students and read other peers’ suggestions on the peers’ drafts. (Sense of responsibility)</td>
<td>3/20</td>
<td>15%</td>
</tr>
</tbody>
</table>

Regarding students’ answers to this question, 50% of students emphasized the importance of interaction with other students and the social and collaborative nature of Google Docs.

*Well, I think that with the help of Google Docs, my peers and I could interact and communicate with one another, also give hands to one another by suggesting some comments on each other’s essays.*

Interview sample excerpt 7, Informant 7, May 2015

Another group of students (35%) mentioned that they found value in interaction with teacher and her valuable support which was available at any time through the chatting feature of Google Docs.
I find Google Docs helped us to easily communicate with the teacher, because there was a chatting option through which she responded to our questions and problems while writing essays and commenting on our peers’ essays. Actually, her responses were very useful and guide us a lot.

Interview sample excerpt 8, Informant 8, May 2015

Finally, 15% of the students stated that Google Docs as a collaborative learning environment increases self-directed learning skill and students’ responsibility to improve their writing by engaging the students in an environment to focus deeply on their peers’ comments, and other students’ essays.

I myself take advantage of this challenging environment (Google Docs) in which I have the opportunity to look at other students’ essays and find the pros and cons of their essays.

Interview sample excerpt 9, Informant 9, May 2015

Question 3: What features of Google Docs you find helpful in your success in writing performance?

Table: 8
Themes of the Third Interview

<table>
<thead>
<tr>
<th>Features of Google Docs</th>
<th>F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chatting (teacher support)</td>
<td>18</td>
<td>33.33%</td>
</tr>
<tr>
<td>Keep students anonymous</td>
<td>15</td>
<td>27.77%</td>
</tr>
<tr>
<td>Research panel</td>
<td>10</td>
<td>18.51%</td>
</tr>
<tr>
<td>Notification via mobile phone</td>
<td>8</td>
<td>14.81%</td>
</tr>
<tr>
<td>Augmented learning</td>
<td>5</td>
<td>9.25%</td>
</tr>
<tr>
<td>Total</td>
<td>54</td>
<td>100</td>
</tr>
</tbody>
</table>

The first helpful feature of Google Docs which was emphasized by students was termed “chatting” (33.33%). The students found value in teacher support through the chatting option, for giving feedback on their peers’ essay, and also they mentioned that by chatting with the teacher, the students could ask some clarification questions in order to revise their essays on the basis of peers’ comments. They mentioned that they took advantage of this feature because teacher support was available at any time, and they did not have to wait for the class to discuss their problems with the teacher.

I believe that Google Docs provides the teacher with the opportunity to give me detailed response through chatting option. This supportive feature was very helpful through which the teacher clarified any parts of my peers’ comments.

Interview sample excerpt 10, Informant 10, May 2015

The second feature of Google Docs mentioned by students (27.77%) was its nature which can keep students anonymous for their peers. The students expressed that they had no fears about commenting on their peers’ essays because of their insured anonymity and they could express their ideas in their essays freely without feeling shy.

In Google Docs environment, I had a good experience and feeling. I didn’t afraid of sharing my essays with my peers since no one knows who wrote those essays. Actually, this online environment is very friendly and well-organized.

Interview sample excerpt 11, Informant 11, May 2015

Another feature of Google Docs highlighted by students as a helpful option was the “research panel” (18.51%), additional links provided in the Google Docs. The students expressed that while writing an essay, they could open a research panel where they could
quickly search the web to find more information on those topics about which they were supposed to write.

*I think that the availability of additional links in Google Docs help me a lot in writing better essays. In other words, those links were a starting point for me to study additional information on the topic of the essay.*

Interview sample excerpt 12, Informant 12, May 2015

Another feature of Google Docs which students highlighted was its notification on their mobile phones (14.81%). In fact, they explained that when their peers commented on their essays, they received a Gmail notification on their mobile phones; as a consequence, their peers’ comments were available at any time, and they were not forced to wait for class to receive the peers’ comments. And they considered this feature as a time-saving option.

*Well, I find many helpful options in Google Docs which weren’t possible in face-to-face classes. For me, one of the attracting features was that we could be notified via our mobile phones whenever our peers commented on our essays.*

Interview sample excerpt 13, Informant 13, May 2015

The fifth feature of Google Docs emerged from students’ interviews was “augmented learning” (9.25%). The students expressed that one of the good and helpful features of this online environment was that all the instructional materials were available in Google Docs and whenever they missed a class, they had access to material without any problems.

*In my opinion, one the most enjoyable features of Google Docs, was that we have always a backup of instructional materials in Google Docs. Whenever I lost the notes of class, I didn’t worry since I could get the lecture notes precisely.*

Interview sample excerpt 14, Informant 14, May 2015

**Question 4: Have you faced any problems with Google Docs in the process of writing instruction while working? What kinds of problems?**

<table>
<thead>
<tr>
<th>Themes</th>
<th>Number of Students</th>
<th>Percentage of the Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>They had no complaints about working with Google Docs for writing process</td>
<td>12/20</td>
<td>60%</td>
</tr>
<tr>
<td>They expressed that the only problem they have sometimes faced was the speed of internet connection which made working with Google Docs difficult.</td>
<td>5/20</td>
<td>25%</td>
</tr>
<tr>
<td>They expressed although they enjoyed working with Google Docs and took advantage of helpful features of Google Docs a lot, sometimes they had faced some technical problems; such as software compatibility, the shortness of chatting screen, difficulty with printing off their peers’ comments on their essays</td>
<td>3/20</td>
<td>15%</td>
</tr>
</tbody>
</table>

In answering the fourth question of the interview, 60% of the students were completely satisfied with working with Google Docs for practicing writing, and they had no complaints and problems.
Actually, Google Docs was very useful for sharing my essays with peers and receiving feedback from my peers. I didn’t face any problems while working with Google Docs during writing process.

Interview sample excerpt 15, Informant 15, May 2015

Among all the students, 25% of them pointed out the only problem that sometimes prevented them from working well with Google Docs for writing process was the speed of their Internet connection (slow Internet connection). Also, they appreciated the application of Google Docs in the writing process, and added they had no problem with Google Docs itself.

Everything was ok with Google Docs. To be honest, our home Internet connection was too slow; consequently, I faced difficulties while attempting to attach my documents. I had to repeat attaching my document as it didn’t get attached.

Interview sample excerpt 16, Informant 16, May 2015

The final group (15%) of the students expressed some of the technical problems of Google Docs and had high expectations of technology (Google Docs). However, they expressed their satisfaction with Google Docs and also mentioned many benefits of this online environment.

Firstly, I appreciate this online tool because of having a lot of helpful features. However, I found few problems while working with Google Docs. For instance, the chat screen was too short for typing. I wished there was a voice chatting feature in Google Docs instead of a chatting screen in which we should type because it took me a while to type whatever I want to ask.

Interview sample excerpt 17, Informant 17, May 2015

Question 5: What are the main factors causing your success or failure in this course? How? (Teacher, effort, ability, luck, task difficulty, etc.).

Table: 10

<table>
<thead>
<tr>
<th>EFL Students’ Causal Attributions for Success in Writing Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attribution</td>
</tr>
<tr>
<td>---------------------------------------</td>
</tr>
<tr>
<td>Effort</td>
</tr>
<tr>
<td>Positive &amp; inspiring environment</td>
</tr>
<tr>
<td>Peer feedback</td>
</tr>
<tr>
<td>Interest in writing</td>
</tr>
<tr>
<td>Teacher (support &amp; method)</td>
</tr>
<tr>
<td>Praise (teacher inspiration)</td>
</tr>
<tr>
<td>Ability (intellectual ability)</td>
</tr>
<tr>
<td>Background knowledge</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

As indicated in Table 10, the attribution “effort” (internal, unstable, controllable factor) was cited 18 times (24.32%). This category included practicing writing skill regularly, and attempting to improve writing skill.

In fact, I always practice writing skill without stop. Also, I repeatedly check my previous mistakes which were highlighted by my peers’ comments to improve my writing performance. I believed that my good grades of writing performance were due to my effort.

Interview sample excerpt 18, Informant 18, May 2015
The other attribution to emerge frequently (20.27%) was “positive and inspiring environment”. This category included statements such as positive environment of Google Docs, and involving in friendly environment, etc.

_in my opinion, one of the important factors leading to my success in this writing course was "Google Docs". Thanks to Google Docs, I have experienced a friendly environment which motivated me to work more on my essays; consequently, it led to my success._

Interview sample excerpt 19, Informant 19, May 2015

Another attribution stated by students (17.56%) was “peer feedback”. The analysis of students’ interviews revealed that they benefited from peer feedback in Google Docs. And they mentioned this kind of collaborative learning, receiving feedback from their peers, was very useful in their success in this writing course.

_well, I think my peers’ comments were one of the prominent causes leading to improvement in my writing performance. I enjoyed my peers’ feedback because receiving feedback from my friends and giving feedback to their essays were useful. Due to my peers’ comments, I made fewer mistakes in my essays._

Interview sample excerpt 20, Informant 20, May 2015

Additionally, the attribution “interest in writing” was mentioned 10 times (13.51%). _Liking to learn EFL writing skill, enjoying writing courses a lot, wanting to improve /learn writing skill, and interest_ were classified under this category.

_i’m interested in writing in English. In my opinion, writing is an important skill in the acquisition of a foreign language. I want to improve my writing performance for my future career as an EFL teacher._

Interview sample excerpt 21, Informant 21, May 2015

The next attribution (10.81%) which students stated was “the teacher”. This category refers to teacher’s support, teacher’s instructional method, and the interaction between teacher and students. The statements loving teacher, teacher’s ability in teaching in the best way, and teacher’s help were included in this category.

_whenever I faced a difficulty in understanding my peers’ comments on my essays, I asked the teacher those questions through chatting in Google Docs and the teacher clarified. Actually, her support was really helpful._

Interview sample excerpt 22, Informant 22, May 2015

Another referred attribution was termed “teacher’s praise” in their interviews. 6.75% of students emphasized the effective role of teacher’s inspiration in increasing their motivation to practice writing skill more, and consequently it led to their success in this writing course.

_i remember the first time the instructor chose my essay as one of the best essays and shared it with other students via Google Docs entitled by my name. In fact, her praise made me more motivated and confident to work harder on my subsequent essays._

Interview sample excerpt 23, Informant 23, May 2015

One of the least frequently mentioned attributions (4.05%) was “ability” which is an internal factor. Statements feeling confident in my intellectual ability, thinking usually I’m intelligent in acquiring writing skill were classified in this category.
Without any exaggeration, I can say that I’m a good writer in English. The reason for this fact is that I have innate ability to acquire writing skill in any language and to write well.

Interview sample excerpt 24, Informant 24, May 2015

Surprisingly, the attribution “background knowledge” was the least frequently mentioned attributions (2.70%). Statements such as my previous knowledge, having practiced writing skill from elementary level at English institute were mentioned under this category.

Well, since I have practiced writing skill for three years in an EFL institute, I didn’t face any difficulties in writing generally. Also, fortunately, I had background knowledge about the topic of final writing test. So, I received a good grade on final writing test.

Interview sample excerpt 25, Informant 25, May 2015

<table>
<thead>
<tr>
<th>Table: 11</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EFL Students’ Causal Attributions for Failure in Writing Course</td>
<td></td>
</tr>
<tr>
<td>Attribution</td>
<td>F</td>
</tr>
<tr>
<td>Lack of Effort</td>
<td>14</td>
</tr>
<tr>
<td>Subject difficulty</td>
<td>7</td>
</tr>
<tr>
<td>Lack of interest</td>
<td>5</td>
</tr>
<tr>
<td>Anxiety</td>
<td>3</td>
</tr>
<tr>
<td>Lack of ability</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>31</td>
</tr>
</tbody>
</table>

“Lack of effort” (45.16%) was mentioned as one of the most significant causes leading to poor writing performance. Not practicing hard, not attempting enough to write essays, and not reading the assigned instructional textbook were the comments included in this category.

I confess that the only matter prevented me from writing my essays as good as I can do, was lack of my effort. I could receive a better grade but I didn’t study well.

Interview sample excerpt 26, Informant 26, May 2015

Moreover, the attribution “subject difficulty” was cited 7 times (22.58%) as a factor leading to failure. This category (as an external and uncontrollable factor) consisted of statements finding the topic of writing test difficult and weird and the difficulty of some instructional materials.

In my opinion, my writing performance is good. But, the major factor made me unsuccessful in this course was the complexity of writing tasks and their topics. For me, the final topic was very difficult, because I have no background knowledge about it.

Interview sample excerpt 27, Informant 27, May 2015

Another attribution which emerged from students’ interviews (16.12%) was “lack of interest”. Comments namely “disliking writing skill and practicing it”, “not being interested in the nature of writing”, and “not wanting to practice writing essays” were classified in this category.

I should say one of the main causes leading to my failure in this course was my lack of interest in writing skill. I really think that an elementary level of writing is enough for me to be a successful student in the university.

Interview sample excerpt 28, Informant 28, May 2015
Interestingly, a new attribution which was mentioned in students’ interviews (9.67%) was “anxiety”. This category was determined by comments such as “feeling of being fearful while working with technology” and “not having sufficient background knowledge about technology and computers”.

*Generally, I’m afraid of using technology because I think I would delete all necessary information of the computer by clicking on the wrong key of the computer. As a consequence, my fear of computer led me to do unsuccessfully in this course in spite of receiving good instruction on working with Google Docs and good instruction on writing.*

Interview sample excerpt 29, Informant 29, May 2015

Another attribution which was referred less frequently (6.45%) was “lack of ability”. This category included statements such as “lacking the innate ability to learn how to write” and “being beyond my control and ability”.

*To be honest, my failure in this course is due to my innate inability to learn how to write. My writing performance is not good. Although I understand the teacher’s instructional materials providing the steps to write well, I cannot apply what I have learned in my writing performance. In my opinion, I can learn new things, but I cannot change my intelligence.*

Interview sample excerpt 30, Informant 30, May 2015

**DISCUSSIONS**

The present study shed lights on investigating the possible effect of Google Docs-based writing instruction on Iranian EFL learners’ writing performance. It also examined students’ perceptions towards the effects of Google Docs and their perceived causes of success or failure in writing performance. With respect to the first research question, the result of a Paired Sample t-test indicated Google Docs environment enhanced students’ writing performance.

The result of the online class instruction improving Iranian EFL students’ writing performance is the same as the finding of Bagheri, Yamini, and Behjat’s (2013) study. They concluded that blended environment considerably enhanced EFL students’ writing performance. Also, this finding is especially in line with Garrison and Vaughan’s (2008) study showing the effectiveness of blended writing instruction in improving students’ learning outcomes.

The second and third research questions of the study focused on the learners’ perceptions towards the influence of Google Docs and causes leading to their success or failure in their writing performance. Students’ perceptions of their success or failure are important factors in language growth or even destruction and they play a key role in language learning and teaching (Brown, 2004).

The results of the semi-structured interview revealed the perception learners carry towards the focus of the study. The first four questions of the interview considered the learners’ attitudes towards Google Docs generally and specifically. The results of the interview indicated that students had positive attitudes towards practicing writing in Google Docs. In fact, the positive effectiveness of Google Docs in learning the writing skill was apparent in the students’ response. They found the writing process in this online environment enjoyable and helpful, and appreciated the application of Google Docs in their writing process.

According to Adas and Bakir (2013), implication of online environment is effective in improving students’ writing abilities in general, and increasing students’ motivation and
interest by providing the same material in different ways. Also, the result of students’ interviews is consistent with Airishi (2012) and Rahimi and Hosseini’s (2011) studies which showed that EFL students had positive attitude towards the implication of online tools in their EFL classes.

The search of 20 students’ causes for their success or failure in this course led to the identification of 13 causal attributions: “effort”, “positive environment”, “peer feedback”, “interest in writing”, “teacher’s support”, “praise”, “ability”, “background knowledge”, “lack of effort”, “subject difficulty”, “lack of interest”, “anxiety”, and “lack of ability”. Of the 13 causal attributions, only “subject difficulty”, “effort/lack of effort”, and “ability/lack of ability” were amongst the four causes—“ability”, “effort”, “task difficulty”, and “luck” presented by Weiner’s (1986) model. Luck was not mentioned by any participants in this study. The reason for not citing ‘luck’ was probably because writing exams in this course were not conducted in multiple choice or a true/false question formats. Regarding these 13 cited attributions; it was revealed that students tended to have stronger attribution ratings for success than for failure.

In case of success, the results of students’ interviews revealed that effort (24.32%) and positive environment (20.27%) were the most commonly causes for this writing course outcome. This finding is in line with the results of Parsons, Meece, Adler, and Kaczala (1982) and William, Burden, and Al-Baharna’s (2001) studies showing that effort, as an internal attribution, was one of the most commonly causal attributions for the students’ success. The effectiveness of other causal attribution (positive environment as an external attribution) for students’ success in this study is also cited in Yilmaz’s (2012) study.

In this study, peer feedback as another external attribution, was also almost highly rated (17.56%) as the cause for success. This finding followed the results of Patri’s (2002) study which revealed the students’ positive attitudes towards the influence of peer feedback on their writing performance. The finding of this study is in contrast with Sengopta’s (1998) idea that students perceived teachers as the only transmitter of information and put little value on peer evaluation and they did not find it effective in leading to autonomous and successful learning.

By analyzing the students’ interviews, it was revealed that the attributions, namely “interest in writing” and “teacher support” were rated as moderately significant causes for success in writing. The finding of this study is in line with the result of the study conducted by Yaghoubi and Rasoul (2015) which investigated Iranian high school students’ attribution for success in language learning, and revealed that “interest” was rated as an important reason for their success, but having less importance or (to a less extent) than the attribution “effort”. The analysis of the results of interviews clearly indicated that some of students perceived the teacher as a supporter helping them in achieving success in writing performance. This finding can be explained by Asian culture, in which teachers are respected as an important person influencing students’ achievement. Also, the finding of the study conducted by Thang and Azarina (2007) indicating students’ great trust in the teachers’ capabilities of helping them to succeed in language learning, supports the finding of the present study.

A comparison across the frequency of attributions revealed that “teacher praise” (6.75%), “ability” (4.05%), and “background knowledge” (2.70%) were not frequently endorsed causal attributions. The finding of this study revealed teacher praise is an effective factor for motivating students to try harder to achieve better writing performance. This finding is among the results of Hawkins and Heflin’s (2011) study indicating that students perceived teacher praise as a causal attribution for success.

Of the found attribution category for success, the attribution “ability” was cited 4.05% in students’ statements. The results of this study indicated those students who perceived their intellectual ability as a predictor of success, their self-efficacy beliefs and self-confidence
would be increased. It supports Hsieh and Schallert’s (2008) idea regarding the attribution of “ability”. Also, this finding is in line with Graham’s (2004) study which identified intellectual ability as a cause for EFL students’ success.

The least rated attribution implied from students’ interview was “background knowledge” (2.70%). A few students expressed that their familiarity with topics of writing essays or their background knowledge had a significant impact on their writing performance. Regarding the positive and influential topic familiarity on achieving success in language learning, the results are in line with Pulido’s (2007) finding. In contrast, the finding contradicts Combs’s (2008) study revealing that topic familiarity did not significantly influence success in language learning. Moreover, it is in contrast with the finding of Salimi and Fatollahnejad’s (2012) study in which the students expressed that their background knowledge or topic familiarity did not have any effects on their writing performance.

The analysis of students’ statements revealed that “lack of effort” was perceived more important than other causes for students’ failure; as a consequence, the students took the responsibility of these writing course outcomes. It supports Weiner’s (1985) idea that the students who attributed their failure to lack of effort, experienced the feeling of guilt; but it is a stepping stone for them to try harder to achieve better outcomes in future tasks. Also, this finding is in line with the results of Hsieh and Schallert (2008), who investigated Spanish, German, and French students finding themselves as unsuccessful learners and attributing their failure to “lack of effort”. One justification behind this finding is that students who perceived their failure as a consequence of lack of effort, do not see failure as a reflection of their intelligence, but they consider it as an opportunity for improvement. This supports Covington and Omelich’s (1979, cited in Perrin, O’Neil, Grimes, & Bryson, 2014) idea stating that in order to preserve their self-worth, students prefer to consider lack of effort as the cause for failure rather than their lack of ability.

Another referred attribution in students’ statements regarding their failure was “subject/task difficulty”. In this study, some students mentioned that the difficulty of writing tasks and the topics of essays significantly affected their writing performance. This finding is in line with Graham’s (2004) study investigating French students’ perceptions about the reasons for their failure. The result of his study revealed that French students attributed their failure to low ability and task difficulty. In the same vein, in his study, Takashi (2003) revealed that university students perceived the learning environment and task difficulty as the reasons hindering their success.

The attribution “lack of interest” was referred moderately by students as the reason for their failure. According to Boruchovich’s (2004) idea stating that attributing failure to lack of interest and laziness leads learners to think they can succeed whenever they become interested in subject for subsequent tasks.

In this study, anxiety towards using technology was also cited (9.67%) as a cause for failure. There were a few students feeling fear while working with technological tools and computers; as a consequence, these students mentioned this anxiety made it impossible for them to succeed in writing performance. This finding is in line with the results of Hwang and Huang’s (2010) study revealing that computer anxiety (as an external factor) was one of causal attributions confessed by the students. Also, there are some other studies (Brosnan, 1998; Kernan & Howard, 1990) showing that computer anxiety was mentioned as one of causes for failure in blended classrooms.

The least cited reason for failure was “lack of ability”. In this study, a few students attributed their failure to an internal attribution, namely their lack of ability. This supports students’ theories of intelligence, including fixed entity theory and incremental theory. In this way, students who considered their intelligence as a fixed trait, believed they had a fixed amount of intelligence. It was very dangerous that these students attributed their failure to lack of ability, because this belief led to their inability to have any control over
the situations (Dweck, 2000). On the other hand, in case of attributing failure to lack of ability, the students who hold an incremental theory of intelligence, tended to work harder to develop their ability to overcome this failure (Dweck & Leggett, 1988). The finding of this study regarding attributing failure to lack of ability supports the results of Gobel and Mori (2007). However, it is in contrast with Weiner’s (2001) idea of self-productive bias, in which individuals attribute their failure to external causes.

CONCLUSION AND PEDAGOGICAL IMPLICATIONS

The findings obtained in this study have led to the conclusion that Google Docs environment had statistically significant effect on improving learners' writing performance. Considering the second research question which was an attempt to identify the perceptions of the Google Docs-based students towards the causes of their success or failure, it was indicated that students perceived both internal and external causes as influential factors in their success and failure; but for failure, internal factors were almost more than external ones. Regarding the third research question which revolved around identifying the students’ perception towards the impact of Google Docs on their success or failure in writing performance, the analysis of students’ interviews revealed that the students showed interest in using Google Docs in their writing classes, and generally they expressed positive attitude towards the implication of this online tool as a factor leading to success in writing performance.

Generally, the findings of this study have important implications for EFL teachers and syllabus designers, because it familiarizes them with the positive psychological effects of Google Docs which promote teacher-student interaction through its chatting feature. In addition, this study contributed to knowledge in the field of foreign language writing because it illuminated how EFL writing students responded to the use of Google Docs for writing process tasks and receiving feedback. With the knowledge gained from this study, it is possible for foreign language educators, researchers, and curriculum and instructional technology planners to gain insight into how students use Google Docs for cross-cultural interaction and writing skills development. Besides, the findings of this study revealed the importance of familiarizing students with different online educational tools (such as Google Docs) in reducing their negative attitude and feelings towards computers and increasing their confidence in using these tools for EFL learning.

Finally, the finding emerged from this study has implication for pre-service teacher-training programs, because it familiarizes teachers with attributional causes for success and failure and their important roles in EFL writing classes; as a consequence, the teachers can promote those useful attributions which have positive and long-term effects on students’ success.

BIODATA AND CONTACT ADDRESSES OF THE AUTHORS

Dr. Zari Sadat SEYYEDREZAIE got her Ph.D in TEFL from Ferdowsi University of Mashhad. She received MA degree in TEFL from Islamic Azad University, Science and Research branch, Tehran. She is currently teaching undergraduate and MA-level courses in different universities of Golestan province. She has presented several papers in International and national conferences in different countries and also published some papers in international journals. Her major areas of interest are CALL, language teaching methodology, and sociolinguistics.

Zari Sadat SEYYEDREZAIE
Ph.D. in TEFL, Ferdowsi University of Mashhad,
International Campus, Iran
Phone: +989112692637
Email: zariseyyedrezaie@stu.um.ac.ir
Prof. Dr. Behzad GHONSOOLY is a professor at Ferdowsi University of Mashhad. He got his Ph.D in applied linguistics from Stirling University. He has published several books and articles in different local and international journals. He is the editor in chief of Journal of Language and Translation Studies and a member of editorial board of different international and national journals including Iranian Journal of Language Teaching Research. His main research interests are language testing, ESP, and translation studies.

Behzad GHONSOOLY  
Professor, English Department,  
Ferdowsi University of Mashhad, Iran  
Phone: +989153107695  
Email: Ghonsooly@um.ac.ir

Dr. Hesamoddin SHAHRIARI is an assistant professor of Applied Linguistics at the department of English, faculty of letters and humanities, Ferdowsi University of Mashhad, where he teaches undergraduate and MA-level courses. Also, he is an educational supervisor at Language Academy, one of the leading language institutes in Iran, offering preparation courses for international examinations such as the TOEFL, IELTS and GRE. His research interests include formulaic language and corpus linguistics.

Hesamoddin SHAHRIARI  
Assistant Professor, English Department,  
Ferdowsi University of Mashhad, Iran  
Phone: +989155101544  
Email: h.shahriari@um.ac.ir

Dr. Azar Hosseini FATEMI is an associate professor, Ferdowsi University of Mashhad, Iran. She got her BA degree in English Language and Literature from Ferdowsi University of Mashhad, Iran. She has received MA degree in TESL from New Mexico, State University, USA in 1980, and Ph.D degree from Panjab University. She has published several articles in different journals. She is a member of editorial board of “Ferdowsi Review, An Iranian Journal of TESOL, Literature and Translation Studies”. Her areas of interest include issues in second language teaching and learning, and sociolinguistics.

Azar Hosseini FATEMI  
Associate Professor, English Department,  
Ferdowsi University of Mashhad, Iran  
Phone: +989155241822  
Email: hfatemi@um.ac.ir

REFERENCES


WHICH ASPECTS OF THE ENGLISH LANGUAGE DO DISTANCE LEARNERS FIND DIFFICULT?

Dr. George Boon Sai TEOH  
School of Distance Education  
University Sains Malaysia, Malaysia

Dr. Agnes Liau Wei LIN  
School of Humanities  
University Sains Malaysia, Malaysia

Kathy BELAJA  
School of Distance Education  
University Sains Malaysia, Malaysia

ABSTRACT
This study reports the findings of a research carried out on distance learners at the School of Distance Education (SDE), University Sains Malaysia (USM). The study was explorative in nature with the purpose identifying the aspects of the English language which distance learners found difficult to learn. A quantitative survey questionnaire design was adopted. The sample consisted of 512 students out of 1028 students who enrolled in the JUE300 English II course responded. The data were analyzed using SPSS IBM version 19.0. The distance learners reported facing difficulties in the aspects of speaking, vocabulary, grammar, writing, spelling, pronunciation, reading and listening in descending order. In the case of the SDE distance learners, their level of proficiency prior to this course, their commitment and hours spent on studying the English language may have affected their perceptions and achievement in the course.

Keywords: Distance learners, English language, distance education, aspects of English, difficulties

INTRODUCTION
University Sains Malaysia (USM) pioneered distance education in Malaysia establishing the School of Distance Education (SDE) in 1971 (Idrus, 2007). The distance education programmes aim to produce more qualified degree holders in order to elevate the status of the country. The programs can be viewed as a second chance for the working adults in Malaysia to attain a higher education. White (2003) observed that distance language learning has evolved from the traditional print-based correspondence course, to courses delivered entirely online with extensive opportunities for interaction, feedback and support between teachers and learners, and among the learners themselves. Salleh (1999) clarified that in the SDE, USM distance education programmes, the students are equipped with self-instructional modules and other multimedia materials such as audio-video materials and slides. Students have to use the internet, listen to radio broadcasts and attend teleconferencing sessions at the numerous regional centres distributed throughout Malaysia.

Bahasa Malaysia is the main medium of instruction while the English language is one of the university courses which students need to pass in order to graduate. Depending on
the level of proficiency the students have attained for their English prior to registering as students; the distance learners need to obtain the required English proficiency credit units to graduate (School of Distance Education Guidebook 2014/2015).

This paper deliberates on the JUE 300 English II course; which is an upper-intermediate course focusing on the further development of the students’ four language skills (listening, speaking, reading and writing) and improving the students’ grammar and vocabulary. This will equip the students with the knowledge and skills to communicate effectively in everyday activities as well as in academic and job situations. For the JUE 300 English II course, the students are provided with a module consisting of 10 units for their self-study. There are also five audio recorded lectures placed in the e-learning portal of the SDE, USM for the students to refer to at their convenience. There are also two slots of face-to-face sessions during the Intensive course. The students are assessed via coursework, continuous assessment and the final exam.

LITERATURE REVIEW

The study is guided by the theoretical underpinnings of Knowles (1973), Ellis (1994), Krashen (1994) and McGroarty (1996). Knowles (1973) highlighted that in andragogy; teachers need to understand the characteristics of adult learners. Adult learners require practical, relevant content, materials and activities that cater to their needs and interests and enable them to exhibit their skills and knowledge. Meanwhile, Ellis (1994) explained that second language acquisition is a complex process, involving many interrelated factors. The term ‘Second language acquisition’ (SLA) refers to the subconscious or conscious processes by which a language other than the mother tongue is learnt in a natural or a tutored setting. Ellis stressed that there are affective prerequisites to acquisition such as a positive orientation to speakers of the language. The amount of skills and knowledge, called competence, will be acquired through input, and certainly the initial production will not be very accurate. Next, the Affective Filter Hypothesis in Krashen’s (1994) Monitor theory explains why some people acquire a second language while others cannot. According to Krashen, some learners may not receive enough input due to attitude, anxiety, a lack of self confidence and motivation. If a learner is anxious or fearful, has low motivation and self esteem, then the affective filter will be high thus hindering language acquisition. If the opposite is true, the affective filter will be low and thus enabling acquisition. Also, according to McGroarty (1996), attitude has cognitive, affective and conative components; the cognitive component focuses on the cognition and thoughts, the affective deals with emotions and the conative component determines how an individual acts on those thoughts and feelings.

McGroarty (1996) asserts that an individual’s attitude involves his or her beliefs, emotional reactions and behavioral tendencies related to the object of the attitudes. Various researchers have also discussed the effects of the affective states of learners on their language learning process (Bailey, 1983 and Guiora, 1983). It is more challenging for distance learners to learn English via distance education than for students undergoing conventional classroom teaching and learning in the universities which is caused by the remoteness of the learning situation. This can mean isolation for the learner as there are communication difficulties for the students to communicate with their teachers. Teoh, Liaw and Belaja (2010) identified five institutional reasons inducing difficulties in adult distance learners at the SDE in learning the English language via distance education. The institutional reasons included issues such as interaction, English Language Course, Course lecturer, Learning module and E-learning portal, audio and visual materials. To support the students in distance education programmes; Tait (2003) underscored that learner support in distance education needs to focus on students’ engagement to enable them to pursue their degree successfully. Thus, research on distance learners’ perceptions about language learning is important because it is practical to assume that their viewpoints have an effect on their learning and eventually their achievements. At present, not much
is known about the aspects of the English language that distance learners experience when learning English at SDE, USM. Thus, this study fills the gap by addressing the following research question; which aspects of the English language do distance learners find difficult when studying their JUE 300 English II course at the SDE, USM. The findings would inform the School of Distance Education of her students’ difficulties for reference so that SDE, USM can offer good learner support and put into place measures that can ameliorate the situation.

METHODOLOGY

Participants
In this study, the researchers employed convenience sampling as it includes the whole population of the JUE 300 English language learners. Convenience sampling is convenient and is the least costly in terms of time and money (Ferber, 1977). All JUE 300 students enrolled in the JUE 300 course totaling 1028 were invited to participate. JUE 300 is a level II course at SDE USM. A total of 512 students voluntarily returned complete questionnaires of this survey. The age range of participants is shown in Table 1.

<table>
<thead>
<tr>
<th>Age Range of Participants</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 - 30 years</td>
<td>138</td>
<td>27.0</td>
</tr>
<tr>
<td>31 - 40 years</td>
<td>289</td>
<td>56.4</td>
</tr>
<tr>
<td>41 - 50 years</td>
<td>72</td>
<td>14.1</td>
</tr>
<tr>
<td>&gt; 50 years</td>
<td>13</td>
<td>2.5</td>
</tr>
<tr>
<td>Total</td>
<td>512</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Instrument
The questionnaire comprised three sections. The items in the first section consisted of eight aspects of the English language that learners might find difficult to learn, namely writing, speaking, reading, listening, pronunciation, grammar, spelling and vocabulary. In the second section, there were 16 items regarding various factors which can induce difficulty in learners to learn the English language via distance education. The third section comprised 31 items which relate to reasons learners might find language learning via distance education difficult. This paper only focuses on the aspects of the English language which the distance learners found difficult to learn via their distance education mode.

The eight aspects the distance learners were asked to identify as being difficult to learn were: (A1), speaking (A2), pronunciation (A3), reading (A4), grammar (A5), spelling (A6), listening (A7) and vocabulary (A8). Respondents indicated their response to each item based on a five-point Likert scale (1 = Strongly disagree; 2 = Disagree; 3 = Neutral; 4 = Agree, and; 5 = Strongly Agree). The questionnaire was checked and validated by a senior lecturer with a PhD from the SDE, USM, who has many years of experience teaching the English language course through distance education. The purpose of validation is to ensure the contents in the questionnaire were suitable for the target research sample and was relevant to the research objectives.

Procedure
The questionnaires were distributed to the students of the course at the first JUE 300 English course lecture during the Intensive Course. The researchers clarified that participation in the study was voluntary and no extra course credits were given for participation. The researchers gave the participants sufficient time to complete the questionnaires. Students who were willing to participate were requested to return the questionnaires by the end of the Intensive Course. The students had approximately three weeks to complete and hand in the questionnaires. Collection boxes were prepared and were located at the main office and in
front of the course lecturer’s office to ensure convenience for learners to hand in the questionnaires.

Data Analysis
The data were analyzed using the SPSS IBM version 19.0. Internal consistency reliability is a measurement about whether the single test is consistent among the items as well as the whole test (Darren & Malley, 2003). In this study, the Cronbach’s alpha approach generated by SPSS was used to measure the reliability and suitability of questions in the questionnaire. As shown in Table 2, the overall Cronbach’s alpha value for the aspects of the English language which distance learners found difficult was 0.870. Based on Table 3, the Cronbach’s alpha value shows that the questionnaire is reliable (Darren & Mallery, 2003).

<table>
<thead>
<tr>
<th>Questionnaire</th>
<th>Number of Items</th>
<th>Cronbach’s Alpha Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspects of English language which learners find difficult</td>
<td>8</td>
<td>0.870</td>
</tr>
</tbody>
</table>

Table 2: Cronbach’s Reliability Test Result

<table>
<thead>
<tr>
<th>Cronbach’s Alpha Coefficient</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alpha &gt; 0.9</td>
<td>Very good</td>
</tr>
<tr>
<td>Alpha &gt; 0.8</td>
<td>Good</td>
</tr>
<tr>
<td>Alpha &gt; 0.7</td>
<td>Accepted</td>
</tr>
<tr>
<td>Alpha &gt; 0.6</td>
<td>Questionable and accepted</td>
</tr>
<tr>
<td>Alpha &gt; 0.5</td>
<td>Weak and accepted</td>
</tr>
<tr>
<td>Alpha &gt; 0.4</td>
<td>Not accepted</td>
</tr>
</tbody>
</table>

Table 3: Description of Cronbach’s Alpha Coefficient Reliability (Darren & Mallery, 2003)

RESULTS AND DISCUSSION
Table 4 shows the aspects of the English language that distance learners found difficult to learn via the distance education mode at SDE, USM.

<table>
<thead>
<tr>
<th>Item</th>
<th>Questions</th>
<th>N</th>
<th>μ</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>I find it difficult to write in English.</td>
<td>502</td>
<td>3.27</td>
<td>0.926</td>
</tr>
<tr>
<td>A2</td>
<td>I cannot speak fluently in English.</td>
<td>502</td>
<td>3.45</td>
<td>0.909</td>
</tr>
<tr>
<td>A3</td>
<td>I am not able to pronounce any English word correctly.</td>
<td>501</td>
<td>3.16</td>
<td>0.918</td>
</tr>
<tr>
<td>A4</td>
<td>I cannot understand the contents of any book/note/article/newspaper in English when I read it.</td>
<td>500</td>
<td>2.84</td>
<td>0.869</td>
</tr>
<tr>
<td>A5</td>
<td>I fare badly in sentence making because of my poor grammar.</td>
<td>502</td>
<td>3.35</td>
<td>0.861</td>
</tr>
<tr>
<td>A6</td>
<td>I have a lot of spelling mistakes in my writing.</td>
<td>502</td>
<td>3.23</td>
<td>0.941</td>
</tr>
<tr>
<td>A7</td>
<td>I cannot understand what others say when they speak in English.</td>
<td>502</td>
<td>2.65</td>
<td>0.904</td>
</tr>
<tr>
<td>A8</td>
<td>I find it difficult to express what I want to say because of my limited vocabulary.</td>
<td>500</td>
<td>3.41</td>
<td>0.927</td>
</tr>
</tbody>
</table>

N = number of respondents, μ = mean, SD = standard deviation
By using the mean value 1.00 to 1.49 to represent strongly disagree, 1.50 to 2.49 to represent disagree, 2.50 to 3.49 to represent neutral, 3.50 to 4.49 to represent agree and 4.50 to 5.00 to represent strongly agree; the results showed that generally respondents depicted a neutral stand for the items listed. By ranking the mean values of the items (as shown in Table 5); it is evident that speaking, vocabulary and grammar are the three main aspects of the English language learners find difficult to learn. This is followed by writing, spelling, pronunciation, reading and listening in descending order.

**Table: 5**

**Ranking of the Aspects of the English Language that Learners Found Difficult**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Item</th>
<th>Aspects</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A2</td>
<td>Speaking</td>
<td>3.45</td>
</tr>
<tr>
<td>2</td>
<td>A8</td>
<td>Vocabulary</td>
<td>3.41</td>
</tr>
<tr>
<td>3</td>
<td>A5</td>
<td>Grammar</td>
<td>3.35</td>
</tr>
<tr>
<td>4</td>
<td>A1</td>
<td>Writing</td>
<td>3.27</td>
</tr>
<tr>
<td>5</td>
<td>A6</td>
<td>Spelling</td>
<td>3.23</td>
</tr>
<tr>
<td>6</td>
<td>A3</td>
<td>Pronunciation</td>
<td>3.16</td>
</tr>
<tr>
<td>7</td>
<td>A4</td>
<td>Reading</td>
<td>2.84</td>
</tr>
<tr>
<td>8</td>
<td>A7</td>
<td>Listening</td>
<td>2.65</td>
</tr>
</tbody>
</table>

The data show the following:

- 47.5% of the students reported a response of strongly agree and agree to Item A2: I cannot speak fluently in English;
- 45.35% of the students reported a response of strongly agree and agree to Item A8: I find it difficult to express what I want to say because of my limited vocabulary;
- 41.1% of the students reported a response of strongly agree and agree to Item A5: I fare badly in sentence making because of my poor grammar;
- 35.3% of the students reported a response of strongly agree and agree to Item A1: I find it difficult to write in English;
- 38.2% of the students reported a response of strongly agree and agree to Item A6: I have a lot of spelling mistakes in my writing;
- 35.1% of the students reported a response of strongly agree and agree to Item A3: I am not able to pronounce any English word correctly.
- 20.0% of the students reported a response of strongly agree and agree to Item A4: I cannot understand the contents of any book/notes/article/newspaper in English when I read it.
- 15.9% of the students reported a response of strongly agree and agree to Item A7: I cannot understand what others say when they speak in English.

Overall, the results show that the distance learners at SDE USM reported facing most difficulties in the aspects of speaking, vocabulary and grammar while learning the English Language via distance education at SDE USM. The distance learners felt that it was most difficult to improve their fluency in speaking English. They mentioned that it was difficult for them to express themselves due to their limited vocabulary. This is not surprising as Jilg and Southgate (2014) observed that in distance language learning, distance learners generally do not have many chances to improve their productive skills – especially speaking English in authentic real life contexts with native or good speakers of English.

The level of difficulty reported by the distance learners appears to be almost at a neutral level. There may be some students who experienced higher levels of difficulties as they were working adults who have just returned to studying English after a break from formal studies.
McGroarty (1996) noted that formal language study does not necessarily improve the students’ perceptions towards the target language. It depends very much on the duration of study, the quality and context of teaching and learning. In the case of the SDE distance learners, their level of proficiency prior to this course, their commitment and hours spent on studying the English language could very much influence their perceptions as well as their performance in this course. This might be compounded by the nature of distance learning where the students were not able to gain access to the target language environment which would have facilitated their learning of the language. Additionally, the JUE 300 English course students at the SDE, USM were only provided with the JUE 300 English course module consisting of 10 units for their self-study. They were encouraged to access the self-instructional modules and other multimedia materials such as audio-video materials, slides, materials from the internet at their convenience. There were only five audio recorded lectures placed in the e-learning portal of the SDE, USM which the distance learners might or might not access depending on their own initiatives. Also, there were only two slots of face-to-face sessions during the Intensive course for the students to seek clarifications from the course lecturer. These challenges that the distance learners face in a distance learning context may hamper their development of autonomous learning. (Hurd, Beaven & Ortega, 2001).

In their context, the language lecturer was mostly not physically present to correct and guide these students in their process especially in terms of spoken English as compared to traditional classroom settings. White (1999) termed this as working in isolation with minimal access to course lecturers. Moreover, most of the distance learners were working adults; thus, these students might not have adequate time to focus on learning English effectively as they have to study for their major subjects too. As Murphy (2008) explained although distance learners are supposed to be autonomous learners; not all the students will succeed to learn autonomously.

In the search of an effective language teaching approach for distance learners; researchers, designers and instructors dealing with the teaching of English language to adult distance learners need to keep in mind Knowles’ (1973) principles in andragogy in that these adult learners have characteristics which vary in terms of different cultures, learning histories and experiences.

In addition, as stressed by Ellis (1985), second language acquisition is a complex process, involving many interrelated factors. Hence, course designers and instructors must be aware of the individual differences that play a significant role in the learning of a language. Especially in the distance learning second language learning contexts such as SDE USM; the students have many differences in terms of age, gender, language learning history, type of occupation, expectations and peer influences which invariably influence language learning attitudes and achievement. The large class size of the JUE 300 English II course (approximately 1000 - 1200 students each academic year) also affects the interaction of the students with the course lecturers during their limited face-to-face encounter and also in terms of the lecturer responding to the students’ emails and phone calls.

As highlighted by Krashen (1994) the affective states of learners are equally influential in determining the success of learners in absorbing inputs in learning English. McGroarty (1996) also stressed that attitude has cognitive, affective and conative components; which decide the actions taken by an individual based on his/her beliefs and feeling. In the case of the SDE USM learners, it is important that their feedback about their difficulties be understood and resolved so that they do not develop a negative attitude towards learning the English course. In order to reduce the difficulties faced by the students, the students should be guided to improve their writing, reading and listening skills via encouraging them to look up particular suggested websites which can assist
them. Students’ spelling and pronunciation abilities should also be enhanced by instructing them to look up the various dictionaries available online. Students should be exposed to the various appropriate materials and teaching techniques available so that they can choose those that suit them best. If students are supported to cultivate a positive perception on learning English, they will hopefully invest more time and effort to learn the language which will influence the student’s language development rate and success.

CONCLUSION

The distance learners in this study highlighted that speaking, vocabulary and grammar as aspects they found especially difficult when it comes to learning the English language in the present situation. Based on these findings, the authors would like to make the following recommendations for designers and instructors of language learning courses in distance education: The course designers should 1) be aware of the particular needs of the distance learners especially in terms of speaking 2) increase the number of contact hours via teleconferencing sessions or traveling to regional centres to meet the students and create opportunities for students to learn, interact and seek answers to their queries in the target language 3) guide and motivate the students to spend sufficient time on reading and enriching their vocabulary as well as on practicing their communication skills and learning grammar.

In the quest to improve the teaching of English language to distance learners; teachers would do well to understand the background and characteristics of their students. They need to understand the students’ difficulties, perceptions and environments. Students’ affective state towards the language and their achievement depends very much on conditions of study and the quality of teaching and support provided. Course designers and instructors for English language teaching and learning via distance education should strive to design and develop courses which attend to these concerns. They have to ensure that the quality and context of teaching is not compromised due to the distance education mode. They need to make sure that the English language course is deemed useful, worthwhile and relevant to the students not only in terms of passing the course but also for the learner to participate in other meaningful interactions using the language and for their self-improvement, academic and professional pursuits. Better teaching materials, strategies and environment can reduce negative perceptions about the various aspects of English that students view as difficult and eventually help the students to improve and achieve success.

BIODATA and CONTACT ADDRESSES of the AUTHORS

Dr. George Boon Sai TEOH is a senior lecturer teaching English and Distance Education at the School of Distance Education, University Sains Malaysia. For his PhD, George conducted research concerning Emotional Intelligence at the University of Cambridge, United Kingdom. His research area comprises Emotional Intelligence, Distance Education, English Language teaching and learning as well as Health and Fitness.

Dr. George Boon Sai TEOH,
School of Distance Education,
Universiti Sains Malaysia,
11800 Minden, Penang, MALAYSIA
Phone: +604 6532275,
Fax: +604 657 6000,
Email: georgeteoh@usm.my
Dr. Agnes Liau Wei LIN is a senior lecturer teaching English Literature and Research Methods at the School of Humanities, University Sains Malaysia. She obtained her BA and MA degrees from University Malaya in the field of English Literature. For her PhD, Agnes studied at the University of Cambridge, UK. Her areas of research interests encompass the Teaching and Learning of Literature in English in Malaysian schools as well as the idea of Race, Religion and aspects of Philosophy in literary texts.

Dr. Agnes Liau Wei LIN
School of Humanities,
Universiti Sains Malaysia,
11800 Minden, Penang, MALAYSIA,
Phone : +604 6533338,
Fax: +604 6563707,
Email: agnes@usm.my

Kathy BELAJA is a former postgraduate candidate at the School of Distance Education, University Sains Malaysia, Malaysia. Kathy’s MA research was on the Effects of Lecturer’s Transactional Presence towards Learners’ Intrinsic Motivation in Learning English as a Second Language through Distance Education. A part of her research findings has been published in Volume 14. No. 1 of the Malaysian Journal of Distance Education in 2012.

Mrs. Kathy BELAJA
School of Distance Education,
Universiti Sains Malaysia,
11800 Minden, Penang, MALAYSIA,
Phone: +604 6532275
Fax: +604 657 6000,
Email: kathybelaja@gmail.com

REFERENCES


School of Distance Education Guidebook 2013/2104 (2013). Penang: School of Distance Education, Universiti Sains Malaysia.


ABSTRACT

Self-regulated learning (SLR) has been recognized as a pivotal antecedent of students’ effective learning and academic achievement. A self-regulated learner can independently and effectively plan for learning, choose and use appropriate learning strategies and reflect and monitor learning progress. Self-regulated learning, for learners in general and for distance learners in particular, is inevitable for effectual learning process. Present study was focused to explore up to what extent distance education system is successful in fostering self-regulated learning among learners at higher level. An attempt was made to highlight the strategies used to foster self-regulated learning and students perceptions about effectiveness of these strategies. Views of teachers of distance education system were also sought to disclose their level of sensitivity, awareness and preferences for endorsement of self-regulated learning among students. Students of MS/M.Phil Secondary Teacher Education enrolled in Spring 2011 were taken as sample for the study. Focus group discussion and interviews were used as the tool for data collection. Data analysis revealed that teachers were very concerned about development of the skills required to regulate one’s own learning among students of MS/M.Phil program. Students considered the self-learning activities, assignments, presentations and reflection activities as very effective ones for transforming them into self-regulated learners. Moreover teachers were familiar with the potential factors that influence learners’ ability to self-regulate their learning, in this context they suggested that more interactive course material and technology based assessment exercises can prove to be remarkable milestones on way to this destination.

Keywords: Self-regulation, learning, monitoring, reflecting, distance education
INTRODUCTION

One of the major functions of education is to develop a person’s abilities and skills necessary for lifelong learning. Every devoted educationist and every good education system wants students to become autonomous learners and thus continue lifelong learning process. But for this purpose learning opportunities according to the interest and values of the students and opportunities of self-direction, self-control and self-monitoring of learning are indispensable. Furthermore, for effective learning process the educational institutions must focus upon the enhancement of students’ self-reflection, self-appraisal and self-efficacy beliefs and provide with flexible learning environments (Derrick, 2003). In short if our goal is life-long learning and students’ autonomy as well as effective and efficient learning, one of the most important skills – the most important benchmark to this way is self-regulation of learning (or self-regulated learning).

Self-regulation as believed by Pintrich (2004) is an active as well as constructive process where learner sets goals for learning and then attempts to achieve these goals by monitoring, regulating, and controlling his/her behavior, cognition and motivation. On the other hand Zimmerman (2008) clarified that self-regulated learning should not be confused with potential for learning as he considered it to be different from mental ability or academic performance skill. Instead, it refers to a self-directed process through which learners transform mental abilities into task-related academic skills.

Zimmerman (2008) defined self-regulated learning as “learning that results from students’ self-generated thoughts and behaviors that are systematically oriented toward the attainment of their learning goals.” Self-regulated learning can also be described as an active process whereby learners construct goals for learning, monitor, regulate, and control their cognition, motivation, and behavior (Paris & Paris, 2001). They are guided and constrained by their own goals and the individual characteristics of a particular learning environment. Self-regulatory activities affect individual students, their level of achievement, and the learning context. It is important, therefore, for students to learn how to learn and take control of their efforts (Wolters, 2011). Zimmerman (1989a, 1989b, 1990, 2001) identified three common features of most definitions of self-regulation.

- Self-regulated learners are assumed to possess the knowledge of the potential usefulness of self-regulation processes in enhancing their academic achievement.
- Second, self-regulated learning is characterized by a “self-oriented feedback” loop. This loop entails a cyclic process in which students evaluate the outcomes and determine the effectiveness of their learning strategies and respond to this feedback in a variety of ways, ranging from covert changes in self-perception to overt changes in behavior.
- The third feature is that most of the definitions of self-regulated learning provide an indication of how and why students choose to use a particular self-regulated process, strategy, or response.

MODELS OF SELF REGULATED LEARNING

There are numerous theories of SRL that differ in sometimes subtle and sometimes significant ways (Boekaerts et al., 2000; Zimmerman & Schunk, Pintrich and Meece, 2008). Self-regulation learning model describes the specific cognitive processes that entail a learner’s self-regulation through the definition of a task, the setting of goals and plans, the use of tactics to learn, and cognitive processes used to adapt learning both within the task and more globally. Winne (2009) posited that learning occurs in four basic phases namely:
They described each of the four phases in terms of the interaction of a person’s conditions, operations, products, evaluations, and standards. All of these aspects, except operations, are kinds of information that a person uses or generates during learning.

Self-regulated learning is controlled by an interconnected framework of factors that determine its development and sustainability (Bandura, 1993; Boekaerts, 1999; Pintrich, 2000; Zimmerman, 2008) and motivation is a critical factor in this framework (Kurman, 2001; Ommundsen, Haugen & Lund, 2005; Wang & Holcombe, 2010).

Rakes (2010) studied the influence of effort regulation as a self-regulatory skill, and intrinsic motivation on online graduate students and their levels of academic procrastination. He understood that both effort regulation and intrinsic motivation among online graduate students in this study had a significant influence on procrastination. Results of this study also indicated that as intrinsic motivation to learn and effort regulation decrease, procrastination increases. Since procrastination has a negative influence on student performance, the findings provide important information for online teachers trying to develop strategies that will improve student achievement in online courses.

In addition, both effort regulation and intrinsic motivation influence procrastination behavior are characteristics that can influence by online instructors in an effort to reduce procrastination. The results of this study indicate that together, these two factors powerfully influence procrastination.

Self-motivation occurs when a learner independently uses one or more strategies to keep themselves on-track toward a learning goal. It is important to the process of self-regulation because it requires learners to assume control over their learning (Corno, 1993). Furthermore, self-motivation occurs in the absence of external rewards or incentives and can therefore be a strong indicator that a learner is becoming more autonomous (Zimmerman, 2004). By establishing their own learning goals and finding motivation from within to make progress toward those goals, students are more likely to persist through difficult learning tasks and often find the learning process more gratifying (Wolters, 2011).

Research on the effects of academic self-regulation and motivation on learning has also revealed significant links between the two constructs (Schunk et al, 2008). Students with more developed self-regulatory cognitive skills are more likely to be more academically motivated and as a result learn more than others (Pintrich, 2003).

Self-regulated learners’ proactive qualities and self-motivating abilities help to distinguish self-regulated learners from their peers. Research shows that self-regulated students are more engaged in their learning.

**Strategies to Foster Self-Regulated Learning**

Preparing students to become self-regulated learners, proficient in controlling the acquisition of knowledge, should be a recursive goal of teachers and students alike. Among the many skills that are involved in SRL, opportunities should be afforded for students to develop strategic reading and writing skills as well as providing for a rich environment of meaningful task engagement.
Self-regulated learning consists of learning strategies such as cognitive, metacognitive, motivational and affective strategies influencing learning performance. Previous research has pointed out that task value was a good predictor of both cognitive and regulatory strategy use by students. Seventh- and eighth-grade students who valued and were interested in the content of the subject area were more likely to report using deeper processing strategies and more self-regulatory strategies (Pintrich, Roeser, & De Groot, 1994; Wolters, 2011). Research evidence shows that self-regulated learning processes such as goal-setting, self-monitoring, and self-evaluation can be supported by using experience and resource sharing tools (e.g., blogs and wikis) whereas communication tools can enhance help seeking behaviors” (Debbagh & Kitsantas, 2012)

Self-regulated learning involves students using an array of cognitive and metacognitive strategies to manage and direct their learning (Pintrich, 1999; Zimmerman, 2001). Self-regulating students are assumed to be cognizant of their actions and able to control them in order to reach learning goals (Wolters, 2011). As students self-regulate, they are metacognitively, motivationally, and behaviorally dynamic within their personal process of learning (Zimmerman, 1994). Eccles and Wigfield (2002) support this view by identifying three characteristics that self-regulated learners possess, such as cognitive strategy use, high levels of self-efficacy, and a variety of goals.

Employing higher thinking metacognitive reading and writing strategies, which foster self-regulated learning; students will need guidance from teachers on developing executive control strategies. Such executive control strategies may be planning and selecting the appropriate reading and writing strategies, monitoring them for problem solving, coordinating their usage and evaluating the entire process. These are more goal setting and goal directed. There are various ways discussed by researchers to use as effective strategies for fostering self-regulated learning among students.

**Performance Monitoring Phase**

- Employ strategies to make progress on the learning task.
- Monitor the effectiveness of the strategies employed.
- Monitor motivation for completing the learning task.
- Reflection on performance phase
- Evaluate performance on the learning task.
- Manage emotional responses related to the outcomes of the learning experience.
- Forethought and planning phase
- Analyze the learning task.
- Set goals toward completing the task.

It is important for teachers to create a climate in the classroom that encourage students to activate strategy use in the construction of further knowledge. The climate will determine the amount of time the student will be engaged in self-regulated leaning and the time expended to the use of strategies to accomplish their goals. It will also contribute to the approach the students use in tackling a problem or project. If the environment is conducive to learning and the task are both challenging and fun, the student will become motivated to further inquire and discover the topic at a more advanced level. These activities must be open-ended, have variety, diversity, allow students to make choices about their journey through self-regulation, and provide for meaningful experiences. They should also have intrinsic value, a sense of ownership, and relate to students experiences. If these objectives are met, they will allow students to increase their retention and to transfer the learned skills to new context.
There are many approaches that can be used to instill self-regulated learning in strategy usage for the development of reading and writing skills, the reciprocal teaching approach and the process of inquiry learning can be employed. Students can also be scaffolded with the necessary support to lead them to a more fruitful independent and self-regulated learning experience. The use of these approaches can be exhibited by social interaction of pair-shared activities, collaboration with children providing useful input into helping each other accomplish their goals, cooperative learning engagements, and children using discussion as a tool in planning strategic reading and writing skill.

Using the process of inquiry learning, the teacher can provide instruction and guidance on self-questioning into a particular inquiry surrounding the task of strategic reading and writing. He or she can further provide assistance with the investigative, creative, discussion and reflective aspect of the approach.

While the cognitive strategies are very important, they concentrate only on what to do and do not leave much room for any thinking about what to how, why, and when. They do not provide for explanation on what to expect from using the particular strategies. I would provide instruction in developing the metacognitive executive control strategies. In addition to the declarative, procedural, and conditional knowledge, they also concentrate on the affective aspects of employing the strategies which include motivation and gaining a feeling of self-efficacy. It is necessary for students to know what outcomes to expect from using the various strategies and why it is important to monitor the strategies. Strategic reading and writing strategies should be used on an ongoing daily basis to allow for practice. They should be practiced in the context the teacher has created for the class and foster the usage of the strategies.

Understanding that factors outside of the teacher’s control can have a major impact on the development of a student’s ability to self-regulate also can prove to be a challenge. For example, how students choose to approach and monitor their learning is usually consistent with their preferred or desired social identity (Cleary & Chen, 2009), which can have little to do with a teacher’s instruction. Whereas students who believe getting good grades is inappropriate for their social group may disregard effective Self-Regulated Learning (SRL) strategies such as doing homework efficiently (Ommundsen et al., 2005), students with identities consistent with intellectual curiosity may be more apt to engage in self-regulated learning (Wang & Holcombe, 2010). Ultimately, students’ social identities can influence their academic behaviors and educational goals (Montalvo & Torres, 2008).

**Self-Regulated Learning in the Context of Distance Education**

Research studies on the application of SRL in the context of distance education are limited. The few existing studies suggested three important dimensions of planning, monitoring and regulating, which facilitated self-learning. Rarely, the studies considered second-level dimensions to the first level factors (as noted above), which could further contribute to understanding the role of SRL in the context of distance learning that heavily depends on independent self-study.

**THE STUDY**

The present research aims to explore how much distance learning programs foster self-regulated learning skills among students. The study is a case study of M Phil secondary teacher education program. For this purpose, students of M. Phil secondary teacher education program enrolled in session spring 2011 of AIOU, and five teachers (faculty members/ Resource Persons) for the said program were taken as sample of the study.
The study used qualitative research methods to get in-depth knowledge and complete insight into the issue. The perceptions of students about their self-regulation and the ability of the distance education program to foster the self-regulation were checked by interviews. The sensitivity, awareness and preferences of teachers were analyzed through focus group discussions.

During the study 12 students of M Phil secondary teacher education were interviewed. The interview was semi structured. Focus group discussion was arranged among the five faculty members/ Resource persons of the secondary teacher education department. The discussion lasted for half an hour.

RESULTS AND DISCUSSIONS

The data of interviews and focus group discussion was triangulated to discuss the overall findings of the study. The M. Phil teacher education program is designed for distance learning. Both teachers and students appreciated the program and believed it to be helpful in enhancing students self-regulated learning skills by helping them in forethought, planning, performance monitoring and reflections on performance.

As one of the teachers stated during focus group discussion:

M Phil program of AIOU is very much different from other regular universities program. The program is deliberately designed in a way that students go through the phases of self-regulated learning even if they have no prior experience of doing so.

The teachers were of the view that assignments sent to students, as an essential part of their degree requirements, play a vital role in enhancement of their self-regulated learning strategies. As one of the teachers added:

We design assignments in such a way that students have to go through certain process for their completion, for example they have to analyze the question, break it into different parts, plan for information sources and then they outline the answers.

During the assignments allocated to them they have to go through forethought and planning phase, for that purpose they analyze the learning task namely the assignment question and set specific goals towards completing it. When students are learning unfamiliar topics, they may not be aware of the best ways to advance on the task or of the goals being the most appropriate. Teachers and/or more experienced peers can tutor students on effective approaches in such problems. One of the teachers explained:

Students mostly approach us if a task is thought to be too much difficult to them. We help them chalk out the plan to make an outline of answer and guide them about sources which may help them. Sometimes we refer them to get help from excelling peers.

Then comes the performance monitoring phase, here, as revealed through interviews, the students utilize strategies to make progress on the questions that need creative answers and monitor the effectiveness of the strategies as well as their motivation for continuing progress toward the goals of the task. It was found that, if strategies are new, students sometimes slip back to using more familiar ones which may even be ineffective.

At the final stage of reflection on performance phase, students have to evaluate their performance in attempting the questions with respect to the effectiveness of the strategies.
that they chose. During this phase, students must manage their emotions about the outcomes of the learning experience. These self-reflections are of key importance which in turn influence students’ future planning for upcoming assignments and goals, initiating the cycle to begin again.

The teachers of the program under study, during focus group discussion, agreed upon the need of inculcating self-regulated learning skills in distance learners. They also analyzed the program and had consensus that it is fostering SRL in learners to some extent. Teachers distinguished between the outcomes of self-regulated learners higher than those who lack in such abilities. It was observed by them that self-regulated learners possess proactive qualities as well as they are self-motivated which helps them to distinguish them from their peers. As a teacher shared her observations:

*While checking the assignments the difference between self-regulated learners and otherwise is clear. Self-regulated learners have done the assignments in time, according to set pattern and gave logical answers.*

The study results confirm many previous studies that showed that self-regulated students were proved to be more engaged in their learning. These learners commonly show certain behavior patterns. During interviews and discussion it was found that students of M.Phil Teacher Education Program were really engaged in their studies. They tend to finish up their assignments well before time. Their presentations are ready before the day to present and during discussions they seat themselves toward the front of the classroom (Labuhn, Zimmerman, & Hasselhorn, 2010), voluntarily offer help to peers to answer questions (Elstad & Turmo, 2010), and are always ready to search for additional resources regarding certain content (Clarebout, Horz, & Schnotz, 2010).

Another feature of self-regulated learners is to maneuver their learning environments to meet their needs (Kolovelonis, Goudas, & Dermitzaki, 2011). For example, teachers have found that self-regulated learners are apt to ask for advice (Clarebout et al., 2010) and information (De Bruin et al., 2011) and follow positive learning climates (Labuhn et al., 2010), than their peers who exhibit less self-regulation in the classroom. It is their resourcefulness and engagement, that findings of recent study suggest their better performance on academic tests and measures of student performance and achievement. It seems as though SRL can make the difference between academic success and failure for many students as is observed by previous researchers (Graham & Harris, 2000; Kistner, Rakoczy, & Otto, 2010).

**Motivational factor in Self-Regulated Learning**

Self-regulated learning depends on an interrelated framework of factors that establishes its development and sustainability. Motivation is a vital factor in this framework. For instance, a student told his way of working on a question:

*When I read the question, it seemed not simple, it had many different parts, each requiring separate sources. So I must plan to deal with its parts and answer each part separately.*

During the forethought and planning phase, when students think about why an assignment question should be responded and how much effort to put toward the details and analysis, their interests and ideals are factored into the decision. If students do not see value in learning goals put forth by given assignment, then they are less prone to spend much time setting goals and planning strategies to carry out those aims. One of the students told about his response to assignments:
Sometimes the questions are not relevant, as I feel, if they have given "write a note on any random topic". I don't feel it much productive I just search the topic and write everything given under the said heading.

Moreover, students’ efficacy belief as well as their self-confidence to productively complete assignments has a role during the forethought and planning and performance monitoring phases in previous researches (Zimmerman, 2000). This research has also discovered self-efficacy and the use of self-regulation strategies to have automatic positive impacts on one another. Students with higher self-efficacy beliefs use more of self-regulation strategies and even the use of self-regulation strategies can escort one to amplification in self-efficacy beliefs and academic achievement.

During the performance monitoring phase, students incessantly appraise the meaningfulness of the learning assignment. Intrinsic motivation and preference guide the level of effort and persistence used in completing the assignment and use of other self-regulation strategies. As one of interviewee answered in the following way:

*I really feel satisfied when I had planned and answered a technically tough question in the best possible way.*

Finally, students’ underlying attributions, which are the factors students attribute to their success or failure for a specific task, play a key role in the reflection on performance phase, as students make decisions of whether or not they will engage in an activity and utilize self-regulation strategies for similar activities in the future.

**Self-Regulated Learning: Strategies for Students**

Many strategies for students to foster self-regulating learning were identified through literature and were pointed out during interviews and focus group discussions as well. Direct instruction involves explicitly explaining different strategies to students, as well as how those strategies are used and what skills are involved in using those strategies (Zimmerman, 2008). The focus of this kind of instruction is modeling and demonstration. When teachers model and explain their own thought processes necessary for completing activities and assignments, students are more apt to understand and begin to use those same processes on their own (Boekaerts & Corno, 2005). Though direct instruction may not be necessary for encouraging SRL in all students, it may be essential for most students. Research has shown that this type of instructions were part of M Phil syllabi. The teacher told:

*The course for distance learning consciously has instructions to use self-regulated learning strategies*

The students were even conscious of it, one of them added:

*The books of the M Phil are different these are full of instructions as well as learning material; these are also guides how to learn.*

Guided practice is another way teachers discussed to help improve SRL and motivation. During guided practices, the responsibility of implementing the learning strategy shifts from teacher to student. For example, a student might practice implementing a specific writing strategy while the teacher carefully observes and offers help when necessary. A student told in interview:

*When the presentations were to be prepared the first time, I had to take guidance from teachers. But when I have done it first time the next ones were far easier for me to do them by myself.*
Independent practice should naturally follow guided practice. During this process, students are given opportunities to practice the strategy on their own, which can ultimately reinforce autonomy. The data indicated that once students were given SRL strategies to use, they were more likely to practice the strategies independently. Ideally, strategy instruction incorporates a combination of direct instruction and modeling, as well as guided and independent practice.

There are certain processes, when taught to students, especially those in distance learning mode. Review of related literature has named the following: goal setting (Winne 2009), planning (Zimmerman, 2004; Zimmerman & Risemberg, 1997), self-motivation (Corno, 1993; Wolters, 2011; Zimmerman, 2004), attention control (Harnishferger, 1995; Kuhl, 1985; Winne, 2009), flexible use of learning strategies (van de Broek, Lorch, Linderholm, & Gustafson, 2001; Winne, 2009), self-monitoring (Butler & Winne, 2009; Carver & Scheier, 1990), appropriate help-seeking (Butler, 1998; Ryan, Pintrich, & Midgley, 2001), and self-evaluation (Schraw & Moshman, 1995). This study interviewed students and teachers to verify use of the processes mentioned in literature.

Students defined goals as the standards they had to achieve. They said that goals regulate an individual’s actions. In the learning assignments, goals might either be a good grade on an exam, or a broad understanding of a topic. Students shared that short-term goals are attainable and are used to reach long-term ambitions. For example, if a student has a long-term goal to do splendid job in an exam, he or she might set attainable short term goals such as studying for a set amount of time and using specific study strategies to help ensure success on the exam. It was also suggested by teachers that encouraging students to set short-term goals for their learning can be an effectual way to help students follow their progress. The syllabus of M Phil helped students use this goal setting strategy by giving them assignments for specific period of time. As a student explained:

* I am glad that the questions are designed unit wise in assignments. I divide learning of units in accordance with assignment questions; short learning tasks seem easy and attainable. And slowly and gradually I go through the whole syllabi till the end of the semester.

After goal setting, planning can help students self-regulate their learning prior to engaging in learning tasks. In fact, the research indicated that planning and goal setting are paired processes, as planning can help learners establish well thought out goals and strategies to be successful. The students and teachers were of the view that planning has at least three stages: establish a goal for a learning task, setting up strategies for achieving the goal, and finding out how much time and resources are required to accomplish the goal, same was stated in another study (Schunk, 2001). During focus group discussion one of the teachers added:

* Our program teaches students to approach academic tasks with a plan which is a viable method for promoting self-regulation and learning. The learning tasks given in evaluation exercises need planning. If a student will be haphazard in his approach, he or she will end up in a mess only.

Furthermore, the distance education programs face the dilemma of the absence of external rewards or incentives and can therefore be a strong indicator that a learner is becoming more autonomous. Self-motivation occurs in these programs when students establish their own learning goals and find motivation from within to make progress toward those goals, students are more likely to persist through difficult learning tasks and often find the learning process more gratifying. The teachers were of the view that:
Self-motivation occurs in M Phil program when students independently use one or more strategies to keep themselves on-track towards a learning goal. It is important to the process of self-regulation because it requires learners to assume control over their learning. We make the exercises creative a technically graded, students are gratified at each step they cover and are motivated to do the next.

Control over ones attention is a cognitive process that requires significant self-monitoring. Process entails clearing the mind of distracting thoughts, as well as seeking suitable environments that are conducive to learning. Research indicated that students’ were satisfied by the capacity of the books to engage them in learning with focused time spent on-task. A student shared his observation as:

*The books of the program are different from traditional ones. There are no long boring notes to read, but small passages followed by the tasks. So I never felt diverted and every new task grasped my attention.*

One of the teachers indicated during discussion:

*Teaching learners to attend to learning tasks is our priority. We help them to control their attention by removing stimuli that may cause distractions, and provide them with frequent breaks to help them build up their attention spans.*

Successful learners are able to implement multiple learning strategies across tasks and adjust those strategies as needed to facilitate their progress towards their desired goals it is noted that most students were aware of and comfortable with different learning strategies. To use new strategies they were ready for appropriate amounts of scaffolding during practice. Teachers helped learners become independent strategy users.

During discussion on scaffolding, the teachers had consensus that:

*The M Phil degree requires a bit different learning strategies from past habits of students; it needs more research oriented approach. We give students tips to switch over from traditional learning strategies to research oriented ones.*

The students were also having the same view. Most of them, more or less responded in the following way:

*I was first confused how to tackle this new approach, I mean the researches, the references, the bibliography, it was all too new for me. But during workshops the technically easy and sound ways of dealing all this stuff were explained in most of the lectures. Thank God now I feel comfortable with all this new learning.*

Self-regulated learners are responsible for monitoring their progress towards learning goals. The process of self-monitoring in learners included self-monitoring of their progress on learning goals, planning ahead, self-motivation, focusing their attention on the task at hand, and use of learning strategies to assist their understanding. Teachers can encourage self-monitoring by having students keep a record of the number of times they worked on particular learning tasks, the strategies they used, and the amount of time they spent working. This practice allows students to visualize their progress and make changes as needed. The teachers opinion that;

*Such kind of tasks as to keep a record of the number of times they worked on specific learning tasks, the strategies they used, and the amount of time they spent working...*
they spent working are provided and instructions are given to guide the students.

Students also agreed with the teachers’ opinion as they get such tasks of keeping of records for their own sake.

Another outcome of the research was interesting and contrary to popular belief. It was that self-regulated learners do not try to attain every task on their own, but rather frequently seek help from others when necessary. An interviewee answered about help seeking in the following way:

*I am not always clear about everything, and even can’t take help from course in some problems, and then definitely I ask from my class fellows or contact teachers directly for help.*

Teachers’ discussion depicted the same. One of them clearly stated:

*We always promote positive help seeking behaviors by providing students with on-going progress feedback that they can easily understand and allowing students opportunities to resubmit assignments after making appropriate changes.*

Students were mostly trained for self-evaluation when they are able to evaluate their own learning through small exercises and checking the answers in the key given at the end of the books. This practice enables students to evaluate their learning strategies and make adjustments for similar tasks in their future. As a student described his observations:

*I keep a regular check on my learning; I take care of time I spend on certain task. I also see that whatever I have learned through guidance, I should be able to use it in next task performance. If I do not check my own progress then I fear I won’t learn up to the mark and in time.*

In summary, self-regulated learners were found able to set short- and long-term goals for their learning, plan ahead to accomplish their goals, self-motivate themselves, and focus their attention on their goals and progress. They also are able to employ multiple learning strategies and adjust those strategies as needed, self-monitor their progress, seek help from others as needed, and self-evaluate their learning goals and progress based upon their learning outcomes. Teachers at the primary and secondary levels can use the aforementioned strategies to promote self-regulation in their classrooms. However, teachers should understand that learners develop at various paces, and strategies that work best for one learner may not always work with the next.

**Social Support and Feedback**

This study also found that social support from teachers and peers served an important role as students are learning to be more self-regulative. Findings from a study showed that task engagement and the use of SRL strategies was more common in students that regularly received support from their teacher and peers. Often, social support came in the form of feedback.

The teacher said in discussion:

*We give prompt and positive feedback to students for their work as this will encourage their self-regulation in future.*

Research indicates that effective feedback includes information about what students did well, what they need to improve, and steps they can take to improve their work. This type of
feedback is often referred to as progress feedback. Not only can progress feedback assist students in improving their academic achievement, it also can promote student motivation and self-regulation. The student responded to a question about support in following way:

*I’m so happy when I get appreciation note on my assignment from the teachers. I feel motivated to go for even better next time.*

Another student added:

*When I gave presentation, and it was followed by applause from my class and such positive comments from my teachers, I promised to myself that next presentation would be even better than this.*

Results indicated that students who received feedback from their teachers were more likely to accurately use SRL strategies to improve their scores.

**Challenges to Promoting Self-Regulated Learning in the Classroom**

Though most teachers would agree that teaching students to be more self-regulative would be ideal, the practice does not come without challenge. Developing lessons that prepare students to engage in SRL practices and provide real support and opportunities for implementation is no small feat. Many will find that the major obstacle in helping students become self-regulative is the time required to teach students how to use specific strategies. Understanding that factors outside of the teacher’s control can have a major impact on the development of a student’s ability to self-regulate also can prove to be a challenge. For example, how students choose to approach and monitor their learning is usually consistent with their preferred or desired social identity, which can have little to do with a teacher’s instruction. Whereas students who believe getting good grades is inappropriate for their social group may disregard effective SRL strategies students with identities consistent with intellectual curiosity may be more apt to engage in SRL learning.

The study revealed that teachers were very well aware of the fact that self-regulated learning is inevitable for distance learners’ success. But at the same time they believed that teaching self-regulated learning strategies in distance education context is not an easy job. They discussed different ways to address these challenges. On important step in this regard was to provide interactive and thought provoking content and activities.

**CONCLUSION AND IMPLICATIONS**

This study indicated that distance education students have a relatively high level of self-regulation based on their own perceptions. Within the scope of the study, distance education students were interviewed to check them in terms of their self-regulating skills. Students reported to be at high level of self-regulating skills. The study also found differences in self-regulation skills based on academic achievement. Students with higher self-regulated learning strategies employed, academic achievement were found to report themselves higher in terms of self-evaluation and metacognition sub-dimensions. Therefore, it can be stated that self-evaluation and metacognition are important predictors of academic success at higher education. Teachers also indicated that the course of said program could be designed in more interactive form to promote self-regulated learning.

This study focused on one department at higher education level. In other studies, different students from different departments can be compared in terms of their ability to foster self-regulating skills and through these comparative studies different results may be obtained. This study aimed at getting a general overview of self-regulating skills of higher education students. In another study, researchers can focus on the factors that contribute to the development of self-regulating skills of students.
BIODATA and CONTACT ADDRESSES of the AUTHORS

Dr. Munazza AMBREEN is currently working as Assistant Professor in secondary teacher education department of Allama Iqbal Open University, Islamabad, Pakistan. She has completed her Ph.D in education from National University of Modern Languages Pakistan. She is coordinator of M. Phil Teacher Education Program and is actively involved in M. Phil and Ph.D research supervision. Her special interest areas are teaching and learning strategies, quality assurance and enhancement in higher education, educational psychology, educational leadership and management.

Dr. Munazza AMBREEN  
Assistant Professor 
Secondary Teacher Education Department 
Allama Iqbal Open University, Islamabad, Pakistan 
Phone no: +923075045464, +929057713 
E-mail: munazza.ambreen@aiou.edu.pk

Ambreen HAQDAD is a Ph.D scholar in the Department of Secondary Teacher Education, Allama Iqbal Open University Islamabad Pakistan. She is serving as Teacher in English subject in Army Public School and College Rawalpinid. Her areas of interest in research are Teacher Education;

Ambreen HAQDAD  
Ph.D Scholar 
Secondary Teacher Education Department 
Allama Iqbal Open University, Islamabad, Pakistan 
Phone no: +923325526580  
E-mail: ambreenhaqdad@gmail.com

Wajid A. SALEEM is MS leading to Ph.D scholar in the Department of Management Sciences, Iqra University, Islamabad. He is serving as Assistant Director in Higher Education Commission in Islamabad. His areas of interest in research are School leadership, management practices, compensation management and servant leadership in educational institutions.

Wajid A. SALEEM  
MS Leading to Ph.D Scholar  
Iqra University, Islamabad, Pakistan 
Phone no: +923135378584  
E-mail: wajidalisaleem.was@gmail.com
REFERENCES


VIRTUAL LEADERSHIP AT DISTANCE EDUCATION TEAMS

Meltem KUSCU
Burhaniye Nadir Tolun Secondary School,
Balikesir, Turkey

Assoc. Prof. Dr. Hasan ARSLAN
Department of Educational Sciences, Faculty of Education,
Canakkale Onsekiz Mart University, Canakkale, Turkey

ABSTRACT

Globalization being one of the most popular terms of recent years is considered as a factor changing the operation styles of the companies. Companies and universities opened up to the world with the globalization and as a result of it, they had the opportunity of being a world brand. Now, some companies have affiliated companies in almost every country. Well, if we think about time and place difference how do these companies lead the affiliated companies in various locations of the world? This question resulted in the new leadership approach, virtual leadership. The process of distance learning beginning with newspaper advertisement appears as virtual learning now. A number of companies and universities provide distance learning classes and in-service training in virtual platform via Internet. These trainings provided independently from time and space are conducted in a country and worldwide sometimes. If we consider individuals in different time and environments as virtual teams, dealing with these virtual teams is the duty of virtual leader. The purpose of this study is to examine virtual leadership perception of distance learning teams. Three trivets are in question for distance learning teams. The first one is the academicians lecturing the second one is the students and the third one is coordinator and technical support team. Perceptions of virtual leader of the said three groups were examined individually in this study. The major findings are about who the virtual leader is and what properties virtual leader should bear. The virtual leader is, anyone inside the team for academicians, manager for technical support team and teacher for students. The most important ability for virtual leader is communication skills. In this study, there are different perspectives about virtual leader and leadership at distance education teams.

Key Words: Distance Education, virtual teams, virtual leadership

INTRODUCTION

The virtual team concept is one which has entered our lives upon the development of technology and thereby the change in communications media. At present, people, whether employed by a company or not, may work and make a living by using information and communication technologies at home. And this shows us the power of information and communication technologies. Starting from the question “As a single person may achieve this from home, why cannot companies achieve it?”, the virtual team concept has been put into the agenda of companies and educational institutions. When we look into the present state of affairs, we see that to be a world brand and a center of attraction for companies and educational institutions respectively has been associated with the importance placed on virtual teams in a directly proportional manner.

In the new economic environment where conditions of competition have changed, business concerns have tended to form new organizational designs which may respond to the requirements of the age. Business concerns employ brain workers in accordance with these
new designs. Increase in brain workers has paved the way for the adoption of such human resourcing applications as working at home, mobile working and tele-working which encourage flexibility and the flexible work arrangement (Naktiyok, 2006).

Virtual teams have attracted attention on themselves in the business world and academic circles thanks to its inherent potential competitive advantages on one hand while they have put into agenda several issues thanks to their structure and dynamics (Yesil, 2011). Importance of such issues as leadership, confidence, motivation, communication, culture, etc. in virtual teams must be emphasized (Kirel, 2007). Technology must not be an end but a means in education. Support must be taken from technology in order to achieve learning in an efficient manner (Sonmez & Gul, 2014).

The significance of this study is understanding of virtual leadership perspectives in distance education teams. Because it is a new leadership approach for people. The aim of this study is to raise awareness about who virtual leader is and what virtual leadership is in distance education teams. If awareness can be created in people’s mind, more studies will be done in this regard, and virtual leadership perception will be become clearer.

VIRTUAL TEAMS

Virtual team is a group of people coming together to achieve goals in an electronic environment. Other names of virtual teams are cyberteams, dispersed teams, distributed teams and online teams at the literature (DuFrene & Lehman, 2012).

Virtual teams allow for people in different locations and at different time frames to be able to work in different locations and at different times without coming together in accordance with common purposes, using such communication media as e-mail, telephone, groupware and video conference (Akkirman, 2004). Virtual organizations have emerged once computer technology made communication covering distance, time and culture possible. Reply to the question “Why virtual teams?” lies behind the technological developments, global competition and environmental factors. Conditions required for establishing a virtual team are to work with specialists, to take place in a fast-changing industry, to have a different company culture and to use advanced technology (Varol & Tarcan, 2000).

Leadership dilemma can live in a virtual team sense. Firstly, people random or casually join wide variety of social and organizational phenomena. Second, we should consider the difference between virtual new product development team and an engineering web-based learning network which are called virtual teams. In the first case, members share responsibility and develop interdependence with e-mails. In the second case, the organization creates the conditions for effectiveness. After the research about this dilemma, it is clear that, the web-based interest groups and other loosely formed collectives aren’t virtual teams (Gibson & Cohen, 2003).

Teamwork is common work value for companies which using teams organized around successive task. And virtual team is the latest point about teamwork. Team members use technological information and communication devices like mobile devices, text messages, e-learning modules, cloud computing owing to network and wireless technologies for access. There are lots of definitions and names about virtual teams. But consensus idea is using information and communication technology for overcome distances. Only difference between traditional team and virtual team is simultaneously working together, while physically apart. The success factors of virtual teams are clarify team goals, roles, individual responsibilities and deadlines. There are three stages of virtual team development. These stages are setup, follow-through and refresh (Zofi, 2012).

There are characteristics distinguishing virtual teams from the other ones. In conventional teams, team members are face to face at the same location and carry out synchronous coordination face to face. But in a virtual team, members are at different locations and in contact via non-personal and asynchronous media. Team coordination is not much required
due to the organization system. Characteristics of virtual teams may be listed as being deployed, employee empowerment, mobility, interdependence, common purpose and confidence. Considering their advantages and disadvantages, travel expenses, saving of time, capability to access to abilities and skills without having to meet in person, giving personal freedom and accompanying efficiency may be listed among advantages. Reduction in the follow-up and control of operations, conflict, communication problem, lack of confidence and power complexity, and technological incompatibilities may be shown as disadvantages (Yesil, 2011).

It is important to create common purposes among the members and to have the members believe in such purposes in virtual teams. Vision, mission and goals are more important for virtual employees. These terms facilitate the integration of the employees with the organization and one another. Further, the terms vision, mission and goal serve as guides for the virtual employees to make decisions as well (Akkirman, 2004).

When one studies the definitions, it is observed that the virtual team and virtual organization concepts are used in the body of literature. The common feature emphasized in all of them is that companies and educational institutions should head for virtual media so that they may survive under global competition conditions. Teams consisting of individuals using different languages in different geographies bring about several advantages. As long as communication is established well, organization organized well and job descriptions identified well. Thanks to virtual teams serving in different continents, a company or educational institution may be open on 24h basis, thus responding to any requirements.

Virtual Teams and Leadership
It has been possible to supervise workers and tell them what to do and how throughout history. It is not, however, possible to supervise bran workers. Because they have more information in the job they perform than anyone else. Otherwise, they are then in a useless position in terms of achieving the intended purposes (Bozkurt, 1996; cited by Akkirman, 2004).

In their study, Polat and Arabaci (2014) have used the open leadership concept about the leadership performed in social network media and online education. Open leadership has been emphasized as that a manager should abandon his effort of control in order to be successful. They have stated that the open leadership concept may eliminate the risk of failure to consider social conditions in the process of making such decisions which may appear upon the establishment of social teams in educational organizations in particular. It is anticipated that open leaders will turn to leaders focusing on monitoring, sharing, commenting, producing, organizing and supervising.

Managers have recently encountered a mode of management to which they are not accustomed. They have had to face an environment where such concepts as controlling and supervising the employee on the job which they have always applied remain inadequate. This mode of management is virtual team management. Management of those teams working synchronously or asynchronously out of the office at home in a different province, a different country or even a different continent has made it necessary to attain different skills. And the virtual team leadership concept has thus emerged. Notwithstanding it being a company or an educational institution, they will need virtual team leaders who will manage their virtual teams well in order to be able to come to the forefront under global competition conditions and even remain standing in the future.

Features Distinguishing a Virtual Leader from other Leaders
As sub-units spread throughout the world in e-businesses, e-business leaders must communicate with a team located not in the same office or building but spreading over different geographies all over the world via electronic media. An e-leader must possess such skills, features and behaviors different from conventional leaders so that he may catch the hearts and brains of those who follow him (Naktiyok, 2006).
A virtual leader must possess the abilities of selecting and using the proper technology which may provide collaboration, confidence and effective communication on virtual media, creating an environment of confidence, managing cultural differences and coaching his employees (Kirel, 2007). A virtual leader must have knowledge about languages and cultures. He must be able to manage any barriers and conflicts between languages and cultures and overcome such problems (Pelayo, 2013).

According to the study performed by Naktiyok (2006), it has been revealed that such variables as persuasive skill, participatory decision-making, IT utilization, sense of humor, creativity, vision, clarity, reliability, motivation, global thinking, risk taking and inspiring have a determinative power in distinguishing the behaviors of an e-leader and a conventional leader.

Management views of virtual team leaders display some difference as compared to the features of conventional leadership. Table 1 contains the skills which a virtual team leader must possess (Akkirman, 2004):

<table>
<thead>
<tr>
<th>Areas of Ability</th>
<th>Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance management and coaching</td>
<td>- Ability to set performance goals and develop strategy,</td>
</tr>
<tr>
<td></td>
<td>- Ability to set measures for team efficiency,</td>
</tr>
<tr>
<td></td>
<td>- Ability to provide and receive informal and formal</td>
</tr>
<tr>
<td></td>
<td>performance feedback,</td>
</tr>
<tr>
<td></td>
<td>- Ability to develop strategies which may justly reward the</td>
</tr>
<tr>
<td></td>
<td>team members.</td>
</tr>
<tr>
<td>Selection and use of proper technology</td>
<td>- Ability to make plans in consideration of the task and type</td>
</tr>
<tr>
<td></td>
<td>of the team, experience of the team, abilities of the team members</td>
</tr>
<tr>
<td></td>
<td>and complexity of the organization,</td>
</tr>
<tr>
<td></td>
<td>- Ability to hold virtual business meetings and plan the agenda thereof</td>
</tr>
<tr>
<td>Intercultural management</td>
<td>- Ability to discuss cultural differences in a constructive way,</td>
</tr>
<tr>
<td></td>
<td>- Ability to create a working environment by making use of not only</td>
</tr>
<tr>
<td></td>
<td>reconciliation but also cultural differences,</td>
</tr>
<tr>
<td></td>
<td>- Ability to make plans considering how such team activities as</td>
</tr>
<tr>
<td></td>
<td>planning, communication, reviews and meetings shall interact with</td>
</tr>
<tr>
<td></td>
<td>the cultures of the team members</td>
</tr>
<tr>
<td>Transition period for career development</td>
<td>- Ability to make a career planning together with the team members,</td>
</tr>
<tr>
<td></td>
<td>- Ability to defend the team members before the top management so that</td>
</tr>
<tr>
<td></td>
<td>team members may be assigned to new positions</td>
</tr>
<tr>
<td>Formation of confidence</td>
<td>- Ability to keep his commitments,</td>
</tr>
<tr>
<td></td>
<td>- Ability to establish good relations with the team members in a short</td>
</tr>
<tr>
<td></td>
<td>time.</td>
</tr>
</tbody>
</table>


**Conditions of Success and Importance of Communication in Virtual Leadership**

A sound foundation must be laid in order to obtain the highest value and to achieve success from virtual teams. As long as three conditions of success are fulfilled, the team will keep surviving. Of these three conditions, the first is goal, the second clear definitions of leadership responsibilities and the third the formation of correct team culture (Harvard Business School, 2011).

Those elements considered to be the condition of success in virtual teams have been studied. It does not seem possible to bring virtual teams into being or reach their potentials
particularly without a careful organization, support and attention to processes. Elements standing out as the conditions of success of virtual teams are identified as team formation, adaptation, effective communication, interaction, continuity of the effect of confidence, an effective information management, learning, utilization and management of technology, management of cultural dynamics, a good coaching and leadership effect, an effective coordination system, control mechanism, performance management, employee empowerment and project management (Yesil, 2011).

Due to their dynamics, virtual teams must use faster, better and more creative lines of communications as compared to other teams (Yesil, 2011). Communication bears importance in virtual teams especially at the time of decision-making and planning (Varol & Tarcan, 2000). New form of communication allows individuals to share their knowledge and thoughts without meeting personally. E-mail is the means of communication which is most used in all distance education systems (Yalcin & Kose, 2009).

In virtual teams, communication varies to a great extent as compared to other teams. It is not possible to make use of body language, gestures and mimics while communicating in virtual teams. In this case, it is not possible to comprehend the problems or motivation level of an employee. It is therefore so important to create clear communication channels in order to enable the team member to send messages to one another easily and to have them remain at the common goal denomination. The first attempt to be made to have the employees meet at the common denominator is to have them reach an agreement on the process and outcomes. Other options are to document the expectations and provide all with information about the processes (Harvard Business School, 2011).

Problems Experienced in Virtual Teams
Resistance of managers to change is an important obstacle we encounter at the stage of forming a virtual team. Managers’ concerns about command constitute an important problem in terms of the difficulty of following up virtual teams. That there is a possibility for employees to misuse the flexible working conditions is another obstacle before virtual teams. Employees’ staying away from the social environment is deemed to be another problem (Akkirman, 2004).

Different cultures, distance, poor opportunity of face to face communication, building trust, properties for selecting members for virtual teams, measuring reward system and develop day by day. All of these issues are the most important detail need to be solved (Gibson & Cohen, 2003). If one wants a good management in virtual teams, there are three important elements which must not be overlooked (Akar, 2005; cited by Kirel, 2007). These are awareness, communication and motivation respectively. One of the problems of managers in virtual teams is the performance measuring system. Performance must be defined well, be facilitated and encouraged so that it may be measured (Kirel, 2007). Competition issue could be addressed in this section. There are 8 problems about challenge in virtual teams (https://www.wrike.com).

- **Poor communication**: 33% of respondents cite communication as their greatest challenge
- **Access to expertise**: 14% report a difficulty in accessing the knowledge they need to succeed.
- **Technical management**: 14% say technical management is their biggest hurdle.
- **Planning overhead**: 12% have a difficult time planning.
- **Lack of training**: 10% claim their team is not adequately trained.
- **Cultural differences**: 9% say overcoming cultural diversity is their team’s biggest challenge.
- **Team morale**: 4% have trouble keeping their spirits high.
- **Lack of support**: 4% don’t feel encouraged in their work.

Lipnack and Stamps (2000) touch upon virtual gap and virtual edge. Working across organizational boundaries introduces communications and motivational problem is a gap.
It is needed to compensate just to bring the team up to the level of performance of a collocated team for prevent the gap. The edge of the virtual teams are using collaborative technologies, designing flexible organizations, compensate for capabilities which is lost and establish the basis for extraordinary performance.

Research reveals the importance of a leader in virtual teams. Problems experienced in virtual teams are usually leader-oriented. When the leader lacks confidence, concern of control occurs. Concern of control occurring in the leader brings about the questioning of quality and costs. And consequently, it leads to the occurrence of such negative conditions as lack of confidence, reduction of motivation and attenuation of organizational loyalty in employees. Virtual team leaders must therefore know and manage their teams well. He must well know their cultural features, personal characteristics and the common language the employees use so that he may know them well. Moreover, he must be able to motivate the employees for common purposes and set up the organization well. A good virtual team leader must continuously keep his communication channels open and give confidence to his employees. Employees must not have any doubts about the justice of the leader. Virtual team leader must cause his employees to feel that they are kept under control but must not embarrass them.

**Virtual Leadership in Educational Organizations**

_In line with the consolidation of the technological infrastructure, schools’ capacities of using information technologies improve. It is observed that virtual team works develop as the use of internet gains wide currency at schools. School managers who have attended the OYGEP (Improvement of School Managers Project) have formed so strong a virtual team among themselves. School managers who lead these teams integrate the efforts of virtual team and try to cause minds meet by creating a virtual brain storm. Spheres of influence of school managers limited to the school may now reach farther beyond the school through their role as the virtual team leadership. Virtual leadership of school managers will be a leadership approach which comes to the forefront in the future school organizations._

(Celik, 2013, s.208-209)

For Ibrahim’s (2014) research findings, virtual leadership model can be applied successfully on the schools leadership field. He has done that article, because evaluate suitability of intra-team communication and job performance among school leaders in Malaysia. It shows that, that article similarly resulted as the pre researches as noted in that article, and that suggested virtual leadership can be practiced by leaders through communication technology, especially mobile technology. Jenkins (2015) asserts that elements in findings of his research should be the foundation for a statement of objectives within a request for proposal that a government entity might use in soliciting services for a virtual leadership development course.

Upon the entry of interactive boards and tablet PCs in educational environments, some differentiation has occurred in the lesson-teaching processes as well. At some schools, teachers give homework on virtual environment, using e-mail addresses. Considering universities, it is clear that those universities without distance education system do not have any chances in the competitive environment at all. Besides, it is observed that those universities opening certificate and diploma programs not only within the country but also at the international level are preferred more. At present, whether governmental or private, managers and teachers of educational institutions must have a character of being good virtual leaders. Virtual leadership perception must be settled well in order to prepare the educational environment, teach lessons and provide communication with students in a strong manner.
Virtual Leadership in Distance Education

Together with the momentum which occurred in the increase of information as a result of the developments in science and technology, keeping data up-to-date has become a necessity. This necessity has resulted in the proliferation of on-line media in the field of education as well. In cases where the population increase and traditional education fail to satisfy needs, especially in consideration of equality of opportunities, distance education practices and alternative education concept have come to the fore in higher education (Bilgic, Dogan & Seferoglu, 2011). Failure to perform the works at the necessary level due to limitations in traditional education and training has laid the way to the investigation into alternative methodologies. As a result of such works, distance education methodologies with various forms of application have been developed (Yalcin & Kose, 2009). Digital communication between the school organization and the school society, i.e., use of the interactive network by the school management, contributes to the quality of educational and training programs (Vazquez-Cano, 2014).

In distance education, a leader is defined as an entrepreneur who permits innovative changes, has creative ideas and follows clear routes in order to achieve certain goals. Mentorship and entrepreneurship are one of the conducts which distance education leaders must fulfil. Educational institutions must have a strong brand image in order to attract students to the new distance education institutions (Gunduz & Bozkus, 2013).

When the studies by Bilgic, Dogan and Seferoglu (2011) have been examined, it has been found out that the most frequently encountered problems in distance education are deficiencies of lecturers in distance education, their incompetencies in technology and shortage of time. That the academicians have to prepare distance education materials among their existing work load appears to be another issue in which they have been challenged. In the study, internet connection and infrastructural problems have also been emphasized. It is stated that instructors must be provided with both pedagogical and technological training in order to overcome such problems.

In a different research, three major problems have been identified in distance education. These are the quality of education, misuse of technology and effectiveness of costs. The leader must issue technology utilization guidelines. He must use current curriculums. They must work with instructors who may use technology. They must manage costs well (Gunduz & Bozkus, 2013).

Distance education is the environment in which virtual teams may be most clearly observed. A distance education center consists of academicians, technical staff members and students. Academicians create contents related to their own fields. Technical staff members are responsible for interface and infrastructure. Coordination and process are an operation implemented by the technical staff members. Technical staff members are also responsible for any problems which may transiently occur. It is the responsibility of the technical staff members to implement the courses in a good way, to communicate with students via e-mail and to send collective information. And students are obliged to follow the courses. Communication completely takes place on the virtual environment. E-mail is the means of communication which is used most.

METHODOLOGY

In this study, qualitative research method has been used as a research model. Interview is one of the most widespread data collection techniques in qualitative research. It is more effective in ensuring to make use of the experience and views of individuals. As the people who attend the interview put their views into words verbally, they have a chance to express themselves in a more comfortable manner (Yildirim & Simsek, 2011).

Interview is the technique of collecting data through verbal communication. Although an interview is usually carried out face to face, it may also take place via instant sound and video transmitters such as telephone or video talk. Further, motion communication carried out with the deaf-and-dumb is also included in the interview class (Karasar, 2012).

The reason why the qualitative research method is used in this study is to obtain in-depth information on the matter. Views of both academicians and technical staff members and students have been asked in order to study the virtual team in distance education concept.
through their eyes. The most appropriate way to study the virtual leadership concept in distance education teams is to apply the interview technique. Therefore, the interview technique has been applied as a means of data collection which is one of the qualitative research methods in order to obtain qualified data through open ended questions. Ten questions have been asked in the interview. Participants have been assumed to have given earnest replies to the questions.

Field of study consists of three groups. The first group is the academicians, the second group the technical support team and the third group the distance education students. The academicians are from Canakkale Onsekiz Mart University and they are working in distance education unit at this university. The technical support group include Informatics Department Teachers at the same university. The students comprise especially state school managers and teachers. The other students comprise the other universities’ instructors, students and military service members. First, each group has been evaluated within itself. And then the three groups in question have been compared and a common conclusion reached.

Collection of data: academicians and technical team have been interviewed face to face. Limitations of the study: virtual communication methods have been employed in order to reach the distance education students. Questions of the interview form have been communicated to the students via e-mail and SMS by using Google documents. Google documents and interview findings were investigated with content analysis method. Each answer was investigated and most often repeated phrases were noted. Frequency tables were created which are mostly repeated in the answers. Close answers were given together under the same title when the frequency tables were creating. Therefore, differences can be seen between the description contained below the tables and given numbers in the tables.

FINDINGS

Forty-four people consisting of 5 academicians and 11 technical support team members employed by and 28 distance education students attending Canakkale Onsekiz Mart University have participated in the interview about Virtual Leadership in Distance Education Teams. Ten questions have been asked in the interview form prepared to study the Virtual Leadership in Distance Education Teams concept. Questions have been prepared by the author of this article, after review the literature. Replies given have been evaluated within the scope of content analysis. Demographic characteristics of the participants and findings obtained for each question are as follows.

<table>
<thead>
<tr>
<th>Table: 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants Characteristics</td>
</tr>
<tr>
<td>By gender</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>11</td>
</tr>
<tr>
<td>By age</td>
</tr>
<tr>
<td>20-25</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>By priority</td>
</tr>
<tr>
<td>1-5</td>
</tr>
<tr>
<td>9</td>
</tr>
</tbody>
</table>
Question 1: What is a virtual team in your opinion?

Table: 3
Description of virtual team

<table>
<thead>
<tr>
<th>No</th>
<th>Participants Opinion</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The organization located in the virtual world with internet and technology</td>
<td>23</td>
</tr>
<tr>
<td>2</td>
<td>Organizations have come together for specific purposes</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>Physically independent</td>
<td>18</td>
</tr>
<tr>
<td>4</td>
<td>Information exchange</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>Timeless</td>
<td>3</td>
</tr>
</tbody>
</table>

According to the replies given by the academicians, a virtual team is people who come together on a virtual environment in accordance with common purposes. The same question has been given a little more technology-oriented replies by the technical support team. It is defined as a team producing work and sharing work load on virtual environment by making use of information and communication technologies on the internet environment. Considering it from the standpoint of the distance education students, it has been described as people working synchronously in a virtual manner, who produce and share information and who need not know one another. Of the academicians, P2 has expressed his view on the matter as follows: "It may be defined as a group working for certain purposes on virtual environment even if they are not physically present in the same location." View of P16 of the technical support team is: "A group of people who share the work load by using technological structures for the same purpose." Of the distance education students, P20 has given the following reply: "A virtual team: areas of ability of the virtual team leader must be planning and coordination, performance management and coaching, proper use of technology, development of the careers of the team members, establishment of confidence, development and adaptation of team processes." Of the participants, P28 has given the following reply to the same question: "I can say that what I understand by a virtual team is a virtual organization coming together for a purpose, which does not exist in fact but makes its existence felt." As a conclusion, it is observed that the virtual team perception of the academicians, technical support team and distance education students is in accord.

Question 2: How do you define virtual leadership?

Table: 4
Defining virtual leader

<table>
<thead>
<tr>
<th>No</th>
<th>Participants Opinion</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Guiding the team</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>Affecting the goals</td>
<td>14</td>
</tr>
<tr>
<td>3</td>
<td>Providing coordination</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>Manages the team</td>
<td>8</td>
</tr>
<tr>
<td>5</td>
<td>Motivating</td>
<td>6</td>
</tr>
</tbody>
</table>

Academicians have defined the virtual leadership as influencing, guiding and motivating one’s team in accordance with certain purposes. Technical support team has defined the
virtual leader as a person who tries to manage a team that never see one another on an information platform. A virtual leader has been defined as a person who has good command of technological structure, carries out task division, identifies roles and provides coordination. According to the views of the distance education students, the concept which is mentioned most is guiding. They have defined the virtual leader as the person who guides and motivates his team in accordance with certain purposes. According to the comment of the academicians, P5: "He is the power to be able to effectively motivate the team members included in the virtual environment in accordance with common purposes." According to P9 of the technical support team: "The person who manages the virtual team. He gathers the team around a common purpose. He determines the task division and the roles. He provides the coordination." View of the distance education student P28: "The person who organizes the virtual organization through technology." P33, who is also a distance education student, defines the virtual leadership as follows: "I think it is a new concept. He is the leader who guides the organization on virtual environment." It is observed that the technical support team especially focus on management and coordination while the academicians and distance education students usually emphasize the leader’s ability to guide and motivate.

Question 3: Do you think distance education organizations are a virtual team each and why?

Table 5

<table>
<thead>
<tr>
<th>No</th>
<th>Participants Opinion</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Distance Education is a structure that will be an example to the virtual team</td>
<td>25</td>
</tr>
<tr>
<td>2</td>
<td>It consists of people who come together for a specific purpose</td>
<td>12</td>
</tr>
<tr>
<td>3</td>
<td>Uses Technology</td>
<td>11</td>
</tr>
<tr>
<td>4</td>
<td>There is a leader</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>It can’t be said for all</td>
<td>6</td>
</tr>
</tbody>
</table>

Academicians consider the distance education organizations to be a virtual team each. They consider them as a virtual team consisting of instructors, students and executives, who are located in different environments and communicate for the same purpose on a virtual environment. Eight of 11 people comprising the technical support team have considered the distance education teams to be a virtual team while 3 have presented different views. The participants who have argued that each distance education organization is not a virtual team have stated that the individuals comprising the distance education organization are usually located in the same environment. When the matter has been considered in terms of the distance education students, 21 participants out of 28 have stated that they consider the distance education organizations to be a virtual team each. Four participants have presented different views and stated that distance education organizations are not virtual teams in their entirety. And 3 participants have replied that "They have no idea." of the academicians, P1 has replied in the following way on the matter: "Yes. Because individuals are not located in the same environment; they are physically separated from one another but all together in psychological way." According to the view of P11 of the technical support team: "They are a virtual team. Because students and teachers are parties who respectively delivers and receives educational services on the internet without coming together in a physical way. One should also remember the other specialists who assist this team in technical support services. It is important for the efficient accomplishment of educational services that they set up and follow up this virtual environment and foresee any hitches which occur and take any measures therefor." P15, who have presented a different view, has clarified his view in the following way: "They are not. Because distance education
organizations are teams that make up and manage the educational environment and are usually located in the same environment. If there is any distance education organization, it is among the distance education students.” Of the distance education students, P21 has presented the following view: “Certainly. To come together for education on a virtual environment will fit in the given definition.” According to P26, who has presented a different view:

“Not exactly, because knowledge sharing should take place on a certain subject. Particularly, no different voices will be uttered by a team consisted of people who are located in the same environment. They should be such groups in which there are different social, economic and cultural views and in which members share their knowledge with one another. We observe that knowledge is usually shared unilaterally in distance education and, for this reason, they may not cover the virtual team concept in its entirety. What the team concept strikes a chord on me is that there should be a guide in the team and other members therein should shoulder the responsibilities to the same extent.”

While all of the academicians qualify the distance education organizations as virtual teams, the technical support team and distance education students advocate two different views. While a majority state that distance education organizations are virtual teams, 7 participants argue to the contrary. And they argue as a reason that the groups other than the students are not distance but located in the same environment. Moreover, the students who allege that communication is unilateral have stated that there should be mutual interaction in virtual teams and therefore distance education may not be a virtual team.

Question 4: Who are included in the distance education teams?

Table: 6
Distance education team members

<table>
<thead>
<tr>
<th>No</th>
<th>Participants</th>
<th>Opinion</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Technical support team</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Lecturer</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Student</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Leader</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Management</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

Academicians have made a grouping under 5 headings. Student, teacher, moderator or director, technical staff members and auxiliary employees have been mentioned. Technical support team have given detailed replies. Eleven participants have stated the units in the technical support separately. The most mentioned groups are moderator, technician, subject matter expert, video recording team, system supervisor, graphics and animation supervisor, scriptwriter, designer, editor, content developer, software supervisors, director, teacher and student. Distance education students have dwelt upon 3 groups in general. They have grouped them as the lecturer who delivers lectures and who is a specialist in his own respective field, the team providing technical support and the student. Besides, some participants have also mentioned controlling body, coordinator, manager and guide groups. While two of the participants have replied “I have no idea”, one participant has replied “They are not teams”. In connection with the distance education teams, P3 of the academicians has replied: “The distance education teams contain a learning individual, lecturer, technical staff members and auxiliary employees.” P10 of the technical support team has replied: “This team contains a manager, manager assistants and members dealing with the other affairs of the team. These people may be as follows:
hardware and equipment supervisor, material supervisors, web-mobile support supervisors, live lecture supervisors, etc. Size of the head office affects the size of the team.” The comment of P18 of the distance education students is as follows: “The management maintaining the management, coordinator, lecturers giving lectures who are sometimes leaders and sometimes group members, we who are team members, the team leader will show up soon, the representative whom we have elected among ourselves.” Of the participants, P30 has commented as follows: “People who are specialized in their own respective fields, bodies controlling them and leader who carry out task division and job tracking.” As it will be seen in the replies provided, the replies especially gather around an instructor who is specialized in his own field, technical support, student and management. Besides, it is observed that the members of the technical support team have entered into details and mention sub-groups within the support team.

**Question 5: How do you define the virtual leadership concept in distance education and who is the leader of a distance education team?**

<table>
<thead>
<tr>
<th>No</th>
<th>Participants Opinion</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lecturer</td>
<td>15</td>
</tr>
<tr>
<td>2</td>
<td>Directing people to the organization</td>
<td>12</td>
</tr>
<tr>
<td>3</td>
<td>Manager</td>
<td>11</td>
</tr>
<tr>
<td>4</td>
<td>Visionary</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Technical support team</td>
<td>3</td>
</tr>
</tbody>
</table>

According to the common opinion of the academicians, whoever performs the work of guiding and motivating in the team is the leader. Further, according to the opinion of three academicians, leadership behavior is expected of the instructor. The situation indicated in the second question appears before us in this question as well. Therefore, 7 people of the technical support team have associated management with leadership and have identified the leader of the team as the unit chiefs. The other four people of the technical support team have stated that anyone who is able to guide and influence the employees within the team may be the leader. According to the distance education students, 8 participants have defined the leader as the academician who gives the lecture. Eight participants have replied that anyone who is able to motivate the individuals and who comprehends technology may be the leader. Out of 6 participants, one has stated that the leader is the moderator, another one has said that it is the president and the others have stated that the leader is the people who are responsible for administrative affairs. Three participants have defined the leader as the person who ensures the functionality. While 2 participants have replied “*I do not have any idea*”, one participant has replied “*They are not teams*”. In connection with the distance education leader, the opinion of P2 of the academicians is as follows: “In distance education, the leader is the instructor, considering the lectures. He should guide the technical staff members, students and materials in accordance with the purposes of the lectures.” According to P8 of the technical support team: “It is the person who guides the people who will form the infrastructure and contents of the distance education, performs the job descriptions and task divisions, organizes the communication and follows up the processes.” Of the distance education students, P18 has stated the following:

> “It is the person who ensures the distance education to progress to the purpose, guides and motivates the team, finds solutions to various problems, anticipates and takes measures against any potential problems and meets students with education. I think the manager/president of the Distance Education Research and Application Centre is the team leader.”
According to the participant P42: “In the very beginning, the person who organizes the distance education is considered the leader. However, leaders in the given lectures are the teachers of such lectures.” To gather the data under three headings, the view presented most has been revealed as that the leader may be any individual who is able to influence and guide. The second view has been stated as that the leader is the academicians who give the lecture. And the view finally stated is that the managerial or administrative unit dealing with the organization is the virtual leader.

Question 6: What is the duty of the virtual leader in distance education?

<table>
<thead>
<tr>
<th>No</th>
<th>Participants Opinion</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Providing coordination and guidance</td>
<td>17</td>
</tr>
<tr>
<td>2</td>
<td>Organize the team</td>
<td>11</td>
</tr>
<tr>
<td>3</td>
<td>To bring people together in team</td>
<td>8</td>
</tr>
<tr>
<td>4</td>
<td>Makes contact constantly</td>
<td>7</td>
</tr>
<tr>
<td>5</td>
<td>Constitutes and planning the learning environment</td>
<td>4</td>
</tr>
</tbody>
</table>

When one studies the replies given by the academicians, it is revealed that communication and motivation are those concepts which come to the fore. Importance of the communication with the technical team and the inclusion of the technical team into the lesson has been particularly emphasized. Besides, such duties as clarifying the mission, revealing the vision, making timetable, encouraging the students to participate, leading in decision-making, organizing the giving of lectures. According to the replies provided by the technical support team, guiding and management are in the forefront. Moreover, replies include making job description and task division, motivating the team, following up the administrative process, identifying the requirements, creating vision, establishing communication and selecting personnel. From the perspective of the distance education students, the job description of the virtual leader has proved to be scattered. Such job descriptions as guiding, combining the team, managing the team, ensuring the education to take place to the purpose, making task division, planning correctly, providing information, organizing and coordinating, making communication continuous have respectively appeared. Besides, replies further include such job descriptions as exercising authority, ensuring full participation of the group, using time correctly, creating vision, using ability of persuasion and making the team feel valuable.

One participant has replied “They are not teams”. P5 has given the definition of the virtual leader in distance education in the following way: “His most important duty is to motivate.” In P7’s opinion, a virtual leader’s duty is “to be able to establish the interdepartmental communication, to select the best people for the education to be given and make them a team.” According to P29 of distance education students, a virtual leader’s duty is “to plan correctly in order to achieve the goals and to cooperate with the authorities in the formation of the best team specialized in its own respective field.” Of the participants, P32 has stated the following about the duty of a virtual leader: “To communicate with the group members continuously in order to solve their problems. To control his team by motivating them. He makes the team members feel that they are valuable.” Job description of a virtual leader in distance education which is mentioned in all three groups appears to be
motivation and guiding. These characteristics are followed by creating programs, ensuring participation, creating vision and communicating. Considering in terms of distance education students, it is observed that virtual leadership qualification is attributed to managers.

Question 7: What are the characteristics distinguishing a virtual leader from other leaders?

<table>
<thead>
<tr>
<th>No</th>
<th>Participants Opinion</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Leading virtual teams</td>
<td>9</td>
</tr>
<tr>
<td>2</td>
<td>The physical properties may not use</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>Using technology</td>
<td>8</td>
</tr>
<tr>
<td>4</td>
<td>More effective, efficient, and be persuasive</td>
<td>7</td>
</tr>
<tr>
<td>5</td>
<td>Provides fast communication and using effective communication tools</td>
<td>6</td>
</tr>
</tbody>
</table>

The common characteristic represented from the academicians’ perspective is that virtual communication and interaction are more limited and more difficult as compared to face-to-face communication. However, its further characteristic has been given as the possibility to access to more people. The technical support team has approached the virtual leader completely from a technological standpoint and stated him as a person who must have competence on information technology. It has been stated that job descriptions must be much more clearly identified by the virtual leader as there is no face-to-face communication. Further, a participant has emphasized that the virtual leader must work in a result-oriented way but not in a process-oriented way due to spatial distance. It has been stated that he must be of such competence which may respond to the needs and requirements of the team despite of the difference in time and space. According to the distance education students, the most distinct characteristic which distinguishes a virtual leader from other leaders is that he has very little chance to use his physical features. It has been stated that his ability to persuade and influence must therefore have been developed. As an affirmative characteristic, it has been stated that time may be saved although communication is difficult. It has also been emphasized that he should understand the information and communication technologies well and that he should use the means of communication much more efficiently. Moreover, it has been stated that a virtual leader must be reliable, provide motivation and guiding. One participant has emphasized that a leader may not go beyond being a manager in a virtual environment. Another participant has stated in a humorous approach that a virtual leader might not have any ambition for position. Two participants have replied “I do not have any slightest idea”. Reply of P1 who has stated his views on the matter is as follows: “While other leaders have a chance to be face to face with the audience, the virtual leader does not have this chance. Besides, the virtual leader is able to access to a great number of audience. And this increases his power.” Reply of P9 of the technical support team has been as follows: “As the virtual leader may not physically come together with the team members frequently, he should very clearly identify the purpose, roles and duties.” And according to P13: “Characteristics distinguishing the virtual leader from the other leaders are that he is unable to communicate face to face with his team at all times and should work on result-oriented basis but on process-oriented one because he may not be included in the working processes.” Reply of P21 of the distance education students has been as follows: “It may not always be easy for the virtual leader to access to the team or the team to the leader; sincerity may be felt more as compared to the virtual environment, but the virtual environment may provide more saving especially in terms of time as compared to the other leaders.” P28 has told the following on the matter: “Leadership whose existence is
perceived, with which faster communication may be established and in which one may act more easily in whether or not directives should be performed." The common characteristic of the virtual leadership which is mentioned by all three groups is that communication should be stronger. Views of those participants who consider the teacher to be a leader and provide replies considering their live broadcast training display some more differences. These participants have stated that tone of voice, gestures and mimics are important for leadership skills in giving lectures.

**Question 8: What are your views about how the virtual leadership in the present situation and how it should in fact be?**

**Table: 10**

<table>
<thead>
<tr>
<th>No</th>
<th>Participants Opinion</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Communication must be good and sharing should be able to do</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>The leader must be open to technology and innovation</td>
<td>7</td>
</tr>
<tr>
<td>3</td>
<td>Guidance, planning and follow-up work should be done well</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>Must be democratic and transparent</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Decisions participation must be ensured</td>
<td>3</td>
</tr>
</tbody>
</table>

When one studies the views of the academicians on how the virtual leadership is, they have stated that it appears to be the state of the conventional leadership concept in the virtual environment. Further, the participant who qualifies the virtual leader as the instructor has said that the instructor must have more initiative. Views concerning how a virtual leader should be have been represented as being visionary, having more different leadership skills, being a little more independent of the technical staff members, having higher verbal and written communicative competence and having good command of technology. In connection with the existing virtual leadership, the technical support team have stated that management qualifications are required rather than leadership. It has been emphasized that there are problems in achieving coordination and that transparency is not at the sufficient level. It has been further stated that a conflict of power and position may be experienced. Characteristics required to be possessed by a virtual leader have been listed as follows: following up technology, being open to developments and able to change in accordance with such developments, sparing a substantial part of his time to this work and implementing the works and transactions in a well-planned way and being strong in human relations. Three participants have not replied this question. While the distance education students have not provided much information on the existing situation, they have dwelled more upon how it should be. They have listed the characteristics which a virtual leader should possess as having strong communication, being able to influence the team, being open to technological innovations, being transparent and democratic, possessing foresight and being able to retain and guide the participants. Six participants have not represented their views. Of the academicians, P2 has made the following statement concerning the matter:

"Instructors should be able to take more initiative as virtual leaders. Technical staff members should be invisible in the class environment. Instructors should be able to implement their own classes from the beginning to the end and should make use of the technical staff only at the stage of preparing the materials. In the present situation, they should be able to open and inspect the classrooms without the technical staff."

P10 of the technical support team has replied "There is no basis or study concerning the existing situation of the virtual leadership. However, I am of opinion that it will be proper
to provide information on the system and the leadership characteristics so that it may set an example for those people who will act as managers in the matter. Each of these subjects is of a separate lesson nature and is very detailed.” And P12 has replied:

“I do not in fact have much information on the matter. However, I can comment on the matter as follows. I think that virtual leadership is not so widespread at present. But I think that advantages of virtual leadership must be benefited through the developing technology. I am of opinion that virtual leadership will be widespread when cloud technology (Google Drive) will be available for file sharing in the virtual environment, social networks (Facebook, Twitter), blogs (Blogger), wikis (Wikispaces) will be used in such events as file exchange and discussion and when free web conferences/meetings (Google Hangout) will be held in virtual environment.”

Of the distance education students, P3’s comment on the matter is as follows: “A virtual leader should not lay low but he is laying low now.” P42 has replied on the matter in the following way: “A virtual leader must ensure optimum participation of the people in the team and give importance to the opinion of the people before him and organize the works to be performed jointly.” Some negative aspects in the present situation have been mentioned by the academicians and technical support team, but no comment has been made on the matter by the students. Common characteristics which all three groups have required in a virtual leader appear to be power of communication, influencing and guiding power and technological competence.

Question 9: How is a virtual leader expected to motivate the team members? Please explain.

Table: 11
Motivating team members

<table>
<thead>
<tr>
<th>No</th>
<th>Participants Opinion</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Participate in the process</td>
<td>11</td>
</tr>
<tr>
<td>2</td>
<td>Communication must be fast and well</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Finding common interests</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>Valuing</td>
<td>9</td>
</tr>
<tr>
<td>5</td>
<td>Generating ideas for supporting the group’s development</td>
<td>4</td>
</tr>
</tbody>
</table>

Replies from the academicians display diversity. This difference is also related to who is considered to be a virtual leader. The participant who considers the instructor to be the leader has stated that one must emphasize the importance of the lecture, appreciate and be good-humored and that the team may thus be motivated. In another reply, acknowledging that the community consists of groups and cliques, it has been emphasized that it should be motivated in accordance with the goals. The common view of the other 3 participants has been that the team may be motivated by taking expectations into consideration and making use of the power of communication. According to the technical support team, replies have been given by attributing the leadership qualification to the manager. The most repetitive reply appears to be effective communication and motivation. Other replies given include equitable task division and organization of joint events. It has been stated that the leader’s making him felt to take place in the team and showing that he is part of the team will be a factor which will motivate the team. It has been stated that the leader should be realistic and evaluate any deficiencies and successes before all the members of the team. It has been emphasized that praise is a significant activating and motivating factor. The most frequently repeated concepts in the replies given by the distance education students are communication, motivation and participation in decisions.
Besides, guiding, good recognition of the team and creation of confidence therein have been stated to be motivating factors. Three participants have stated that they have no idea. Of the academicians, P3’s views on the matter are as follows: “A virtual leader addresses the team members in various social networking environments and motivates them within the framework of a common purpose. In this context, the virtual leader should continuously follow the team members and take their expectations into consideration.” Of the technical support team, P13 has spoken on the matter as follows: “One must not only consider the material aspect but it is also important to recompense the works performed in a spiritual way. For instance, mentioning the works performed with praises may motivate the team members to take action.” Of the distance education students, P26 has spoken as follows: “First, he should have been popular or his leadership recognized and if these occur he may motivate them as he pleases.” And according to the views of P35: “A virtual leader must be one step ahead of the team at all times, be active and well know the characteristics and requirements and expectations of the team.” The resulting common replies appear to be good recognition of the team, good and instant provision of communication, motivating and guiding the team towards common purposes. It is understood from the replies given that praise and appreciation, consideration of the leader as part of the team are also important for the team members.

Question 10: Would you please share what you want to add concerning virtual leadership in distance education teams?

Table: 12

<table>
<thead>
<tr>
<th>No</th>
<th>Participants Opinion</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The process must be managed</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Formal education, should be supported with distance education</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>It should be open to new ideas and practices</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>There should be non-teaching activities</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>Task-sharing should be equal</td>
<td>2</td>
</tr>
</tbody>
</table>

This last question has been replied by 2 of the 5 academicians. Both academicians have stated that supporting the formal education with distance education will lead to affirmative results in the preparation of organizations for the future. Seven of the 11 participants in the technical support team have represented their views. Comments have been usually made on the characteristics which a virtual leader should bear. Alternatively, it has been stated that it will take some time to accept it as it is a new form of leadership. The technical support team have considered the leader to be a manager as in the other questions and stated that a virtual leader must have his origins in informatics and be experienced in team work. As for the distance education students, 8 of the 28 participants have represented their views. Replies given also contain different views besides the works and transactions which must be performed by a virtual leader. For instance, a participant who considers the instructor to be the virtual leader has stated that it may be positive in terms of motivation that the first lecture will be a video lecture as it is of introductory nature. It is included in the comments that distance education studies are to be increased and that the leader may strengthen the communication through non-educational activities. P1’s view on the matter is as follows: “This epoch is increasingly including virtual applications into the organizational structure. While organizations possess a formal structure, they may put virtual applications into service as well. Thus, they will have prepared the organizations for the future.” Of the technical support team, P9 has commented as follows: “Unlike what is supposed, work load may be more in distance education than in conventional education.” Of the distance education students, P35 has dwelled upon a different point with his
following comment: “The virtual leader should both enhance intra-group communication and influence the group in distance education teams by achieving activities other than education.” And P44 has commented as follows: “Works related to distance education may be further increased.” While the academicians and some of the distance education students have made comments of suggestive nature, it is observed that the technical support team usually comment on the characteristics which a virtual leader must bear.

Virtual leadership perceptions of the academicians, technical support team and distance education students have been individually studied. In general terms, it has been revealed that the academicians consider the virtual leader to be any one who is influential in the team, that the technical support team consider the manager to be the virtual leader and that the distance education students consider the instructor to be the virtual leader. In this way, influence of the position in the team on the virtual leader perception has been revealed as well. It has been observed that there are participants who do not consider the distance education organizations to be a team among the distance education students. In the light of the incoming comments, it is observed that the distance education applications are taken to an indispensable position in education with every passing day. It is anticipated that distance education and thereby virtual leadership will bear a greater importance and more studies will be carried out thereon in the future.

CONCLUSION AND SUGGESTIONS

Virtual teams are increasingly becoming indispensable in the business and educational life. To be able motivate people living in different social cultures in different continents at different time zones is a necessity for good functioning of virtual teams. And virtual leaders are those who will achieve this. As societies have not yet shaken off the conventional education concept, it should not be surprising that they consider the virtual leadership to be just a simple management concept. Virtual leadership is just a new concept which is included in the literature.

It is necessary to consider a virtual leader to be a little different from the other ones. Because virtual environments are freer, harder-to-follow environments where organizational loyalty level is more variable. It is the most important duty of a virtual leader to motivate the team members in accordance with the purposes of the organization. It is the responsibility of the virtual leader to establish an environment basing on confidence, first and then to clearly identify the job descriptions and know his team well and identify their needs. Even if the job of a virtual leader seems to be more difficult than the other leaders, it has advantages as well. It has such advantages as being able to access to more people at a time and to offer a comfortable working environment.

When one considers the distance education organizations to be virtual teams each, the question of who the virtual leader is emerges. This study has shown that who the virtual leader is or should varies by the position. Academicians, coordination and technical support team and distance education students have approached the virtual leadership concept from different perspectives. It has not dropped off the map that the technical support team particularly considers the matter from too technical a perspective. While the academicians have usually defined the virtual leader as anyone who may influence the members in the team, the technical support team has defined the manager as the leader. And the distance education students have usually defined the instructor as the leader. The virtual leadership characteristics which all three groups have mentioned in common are communication skills, motivation creating ability and technological competence level. Another common leadership skill is creating confidence on and guiding the team. The common denominator of the virtual leadership concept of these three groups comprising the distance education team is that it requires different skills as compared to the other leadership approaches.

This study shows that results may vary as the virtual leadership concept is just a new concept. Therefore, studies may be carried out on the virtual leadership concept in different
institutions. While distance education organizations of different institutions may be worked with, the virtual leadership concept appears to be a subject on which studies may be carried out in fields other than distance education. More studies should be done on the subject of virtual leadership. Thus the difference between virtual leadership with the former leadership approach will be more clear. The studies about virtual leadership should be increased because of to determine the limitations about this issue. Because virtual leadership is the new leadership approach of the new business and new educational world and the leadership concept of the future.

Authors’ Note: This study is presented VII. European Conference on Social and Behavioral Sciences Bucharest, Romania June 11-13, 2015

BIODATA AND CONTACT ADDRESSES OF THE AUTHORS

Meltem KUSCU currently works as an ICT Teacher at Burhaniye Nadir Tolun Secondary School in Balikesir. She graduated from Department of Computer Education and Instructional Technology Department, Faculty of Education at Canakkale Onsekiz Mart University (2002). Subsequently she received master degree Educational Administration and Supervision from the same university (2016). Her research areas are administration, leadership, educational planning and technologies in education issues.

Meltem KUSCU
Burhaniye Nadir Tolun Secondary School,
Uğur Mumcu Bulv. No: 18, Burhaniye, Balikesir, Turkey
Phone: +90 0266 422 1087
E-mail: meltemkuscu@hotmail.com

Dr. Hasan ARSLAN currently works as an Associate Professor at Canakkale Onsekiz Mart University, Turkey. He holds a BA in Educational Administration and Supervision from Hacettepe University of Ankara, Turkey, an MA in Educational Administration, and a PhD, in Higher Education Administration from the American University in Washington, DC. His research interests include educational administration, higher education policy, student leadership and multicultural education. He has authored Introduction to Educational Sciences and Class Management (2014), and co-edited Applied Social Sciences (2013), Multicultural Education (2013), Multidisciplinary Perspectives (2014), Interdisciplinary Perspectives on Social Sciences (2014), Contemporary Approaches in Education (2015) and Current Approaches in Social Sciences (2016).

Assoc. Prof. Dr. Hasan ARSLAN
Canakkale Onsekiz Mart University
Faculty of Education, Department of Educational Sciences,
Anafartalar Campus, E-Blok # 421, 17100 Canakkale, Turkey
Phone: +90 282 217 1303 / 3010
E-mail: harslan@comu.edu.tr

REFERENCES


BOOK REVIEW

TECHNOLOGY INTEGRATION AND HIGH POSSIBILITY CLASSROOMS:
BUILDING FROM TPACK
Written by Jane HUNTER

Dr. Nejdet KARADAG
Open Education Faculty
Anadolu University, Eskisehir, TURKEY

ISBN 978-1-138-78132-0 (hbk)
978-1-138-78133-7 (pbk)
978-1-315-76995-0 (ebk)

Publication Date 2015
Publication Formats Hardcover and e-Book (PDF)
Publisher Routledge

This book consists of 8 chapters, appeals teachers who want to understand technology integration to education and how it looks like in action in classrooms. High Possibility Classrooms (HPC) models are examined by case studies in different educational settings.

In Introduction, the author explains reason for writing this book, origins of HPC, difficulty of technology integration in education, and suggestions for future.

In chapter 1, the author provides a broad overview of research in technology integration and sociopolitical education environment in Australia, USA, United Kingdom, Singapore and South Korea. In Australia education policy agendas are determined at the national level, but administered on a state or territory. In the USA, recent curriculum development, classroom practices and school education reform determine technology policy agendas. In the UK, as a government agency, British Educational Communications and Technology Agency (BECTA) supports technology integration in the country. Singapore has implemented technology in its education system by three-step Masterplan since 1997. In South Korea, technology integration movement was initiated in the 1980s, and was ultimately implemented in an initiative called the Plan for the Renovation of Education 5.31 which is proposed by the Education Renovation Committee in 1995.

Chapter 2 examines the frameworks of Technological Pedagogical Content Knowledge (TPACK) which was developed by Mishra and Koehler in 2006 and Substitution, Augmentation, Modification, and Redefinition (SAMR) which was developed by Ruben Puantedura in 2006, and how they complement a new model of technology integration. High Possibility Classrooms are developed out of research in particular teachers’ classrooms. The model with its five conceptions (theory, creativity, public learning, life preparation, and contextual accommodations), 22 themes of pedagogical strategies and student learning processes specifies a group of teachers Action Knowledge.
In Chapter 3, the first case study is introduced. It is Gabby, the early year’s teacher whose focus is making learning public through giving students opportunities for performance. She uses active engagement to promote better quality outcomes and encourages the continuous co-creation of products, peer support, modeled and guided practice where there is attention to differentiation and negotiation of learning. Gabby’s classroom is spacious, colorful and child centered where play and fun are central.

The second case study is presented in Chapter 4. This is Gina’s classroom. She teaches her own class, and supports teachers across the school district to integrate technology more effectively. Reliance is placed on theory built from constructivist learning principles and she emphasizes establishing a questioning culture among students. She fosters creativity in her own practice, as well as the students, by making handmade picture books to spark their learning interests and to give them opportunities to create products, like films and animations, to demonstrate powerful learning. Learning communities and real-word applications are central in Gina’s classroom.

In chapter 5, Nina’s classroom in the middle school features a one-to-one laptop program where the teacher’s praxis used Project-based learning in a scaffold called QUEST. Nina relentlessly probes and questions students while they are learning. Values of joy, celebration and preparation for life were evident and such values are congruent with understanding more deeply what creativity can mean in learning. Nina calls for a redefinition of the “game of education” in schools. According to Nina, technology integration was happen if teachers immerse themselves in the context.

In Chapter 6, Kitty’s classroom is presented. It is located in a high school. It is highly useful too, and it is her Visual Arts background that fostered students’ sense of the aesthetic when they made their learning public using technology. The main conceptions in Kitty’s classroom are flexibility, experiential learning, creativity, preparation for a life of learning, and whole school culture. Kitty prepared students for life, and technology integration was central to achieving that education goal.

In Chapter 7, the author brings together the global contexts for technology integration in schools in countries like Australia, USA, UK and Singapore and South Korea. She explains how educators can use the model High Possibility Classrooms (HPC) in practice. Each of the conceptions of theory, creativity, public learning, life preparation and contextual accommodation are detailed alongside the 22 underpinning themes of pedagogical strategies and student learning process. According to the author dynamic relationships exist between technology, pedagogy and context.

In the final Chapter 8, it is discussed how HPC must be used to shape learning and teaching right now. The case studies of classrooms like those of Gabby, Gina, Nina and Kitty draw attention to important promises and the future for technology integration to “re-tool education in schools”. Theory, creativity, making learning public, life preparation, and contextual accommodations are key concept in technology integration in classrooms.

BIODATA and CONTACT ADRESSES of the AUTHOR

Nejdet KARADAG, Ph.D., is an assistant professor and works as the manager of the Assessment Department at the Open Education Faculty of Anadolu University. He has a BA degree from the Department of French Language Teaching and MA degree from the Department of Distance Education. He received his Ph.D. in Distance Education from Anadolu University. His research interests are instructional design, assessment and evaluation and new learning technologies in open and distance learning.
Nejdet KARADAG
Open Education Faculty
Anadolu University, 26470 Eskisehir, TURKEY
Phone: +90 (222) 3350580 Ext: 2700
Email: nkaradag@anadolu.edu.tr, nejdetkarada@gmail.com

REFERENCES

INTRODUCTION

Adaptation of technological developments to the education systems has been caused changes in educational environments. One of the influential components in this change is artificial intelligence applications. Educational learning systems (ELS) become intelligent with the use of artificial intelligence techniques. Also, they can include adaptability to meet user needs. Intelligent and Adaptive Educational-Learning Systems (IAELS) defined by book editor as “ELS that include some kind of intelligent and adaptive functionality”.

The book, entitled “Intelligent and Adaptive Educational-Learning Systems: Achievements and Trends” and edited by Pena-Ayala, includes studies of researchers from different fields about IAELS. Book comprises of four parts and twenty chapters. In these parts, user modeling, content, virtuality and applications in this field are discussed.

Part 1: Modeling
In the first part of the book, user modeling studies are presented. User modeling is one of the important parts of IAELS. In these studies, different methods and techniques used for modeling learners in order to adapt systems according to learner needs are explained. The modeling part includes chapters one to four. In chapter one, authors introduce an affective behavior model for adaptive and intelligent instruction. This model represents learners’
affect status and adapts the instruction through dynamic Bayesian network and Cognitive Model of Emotions. The second chapter includes an adaptive learning environment model which contains a domain model, a learner model, a course structuring model and an adaptation model. This model contributes to the literature by modeling the adaptive learning curriculum. Chapter three introduces an approach which predicts student’s domain knowledge by causal and fuzzy student model and sequences lectures according to domains of student’s attributes. Model estimates learning outcomes to select the most yielding lecture for the student. In chapter four data mining is considered for deducting information from event logs. Model is considered in e-learning context.

**Part 2: Content**
In the second part, it is emphasized that adapting content rapidly is necessary to gain optimal learning outcomes. Studies that aim at composing intelligent and adaptive structures in different learning environments are explained. Part two includes six chapters. In chapter five, learning style index method is used to provide efficient learning to learners. It also guides teachers to use suitable materials for an effective learning. Chapter six provides information about GRAPPLE which is both an adaptive learning environment and a learning management system. It uses a common user model framework. GRAPPLE supports learners by means of adaptive guidance and personalized content. In chapter seven, adaptive content selection in adaptive educational hypermedia systems is considered and a performance evaluation methodology for decision-based approaches is introduced. In chapter eight, a collaborative adaptive tool is presented. The platform which is able to create various learning object instances adapts activities to the characteristics and learning style of the student by using information from student model. Chapter nine includes the study about reusable courses and educational contents. A case study of an adaptive management system and an authoring tool which helps instructors to design adaptive courses are mentioned in this chapter. Chapter ten considers implementing intelligent tutoring systems as learning objects to different educational systems by using Sharable Content Object Reference Model.

**Part 3: Virtuality**
Virtuality part consists of four chapters, highlights that modern user-system interfaces and technologies provide opportunity to collect data about learners and their movements on learning systems. In this part learning applications in virtual worlds are examined. Chapter eleven describes the use of a three-dimensional virtual world in education. In chapter twelve, a smart home domain used for computer science education is described. Chapter thirteen examines training of prospective tactical air controllers of the U.S. Navy by means of advanced training technology. In chapter fourteen, a cognitive tutoring agent is proposed. The agent has similar learning capabilities with a human such as episodic, emotional and causal learning and uses these capabilities to support optimal learning.

**Part 4: Applications**
In the last part of the book named Applications addresses approaches in IAELS such as metacognition, educational system architectures, collaborative learning, educational data mining and case studies. This part includes chapters fifteen to twenty. In chapter fifteen, generic and specific prompts which include learning-by-teaching activities are considered to promote reflection. Chapter sixteen focuses on the assessment on higher order knowledge and introduces an educational learning system allows users to learn self-paced. The study takes part in chapter seventeen presents a Web-mediated training system that
aims to encourage non-technical developers to deliver their own adaptive educational-learning systems. Chapter eighteen examines the impact of illusionary sense of control on intrinsic motivation towards better work and on quality of collaboration. Chapter nineteen discourses an educational-learning system that aims at evaluating and refining university curricula to improve learning success by applying an educational data mining technique. Chapter twelve discusses the use of artificial intelligence in e-learning in three areas: technological, business and educational. The study seeks for key areas which artificial intelligence is applied to e-learning effectively.

This book that consists of four parts is beneficial in terms of presenting basics, studies, and applications in the field of artificial intelligence on education to researchers, academicians and learners work in pedagogy, education, computer sciences, artificial intelligence, and graphic design fields.

BIODATA AND CONTACT ADDRESSES OF THE AUTHOR

Gamze TUNA is currently working as a Research Assistant in the Department of Distance Education, Open Education Faculty at Anadolu University, Turkey. She graduated from Industrial Engineering Department of TOBB Economy and Technology University at 2011. TUNA worked in a logistics company as System Development Engineer between September 2011 and February 2014. Currently, she is graduate student in Department of Industrial Engineering and doctoral student in Department of Distance Education at Anadolu University. Her research interests are open and distance education, adaptive and intelligent learning, personal learning environments.

Research Assistant Gamze TUNA  
Open Education Faculty,  
Anadolu University, 26470 Eskisehir, TURKEY  
Phone: +90 (222) 335 0580 ext: 2772  
E-mail: gamzetuna@anadolu.edu.tr

REFERENCES