REPUBLIC OF TURKEY
ÇUKUROVA UNIVERSITY
THE INSTITUTE OF SOCIAL SCIENCES
DEPARTMENT OF ENGLISH LANGUAGE TEACHING

IMPROVING PRESERVICE ENGLISH LANGUAGE TEACHERS' ICT SKILLS & DEVELOPING POSITIVE ATTITUDES TOWARDS THE USE OF TECHNOLOGY IN LANGUAGE TEACHING THROUGH AN ONLINE COURSE

Emsal ATEŞ ÖZDEMİR

A PHD DISSERTATION

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I certify that this thesis conforms to the formal standards of the Institute of Social Sciences.
…./… / 2013

Prof. Dr. Yıldırım Beyazıt ÖNAL
Director of Institute

To the precious memory of my father, Ömer Faruk ATEŞ…

ÖZET

ÇEVRİMİÇİ BİR DERS ARACILIĞIYLA İNGİLİZCE ÖĞRETMENLİĞİ ÖĞRENCİLERİNİN BİT BECERİLERİNİ İYİLEŞTİRME VE YABANCI DİL EĞİTİMİNDE TEKNOLOJİ KULLANIMINA YÖNELIK OLUMLU TUTUM GELİŞTİRME

Emsal ATEŞ ÖZDEMİR

Doktora Tezi, İngiliz Dili Eğitimi Anabilim Dalı
Danışman: Yrd. Doç. Dr. Hasan BEDİR
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Teknolojinin dünyada hızla gelişmesinin öğretmen eğitimi üzerinde önemli etkileri olduğu görülmektedir. Modern zamanlarda öğrenen profili değiştikçe öğretmen profilinin de öğrenenlerin ihtiyaçlarına göre gelişmesi gerekmektedir. Amiri (2000) bilgi teknolojilerinin (BİT) hem günlük hayatımızda, hem de eğitimde çok önemli bir hale geldiğini ve öğretmenlerin BİT'leri derslerinde etkili bir biçimde kullanmaları gerektiği konusunda öğretmen ve öğretmen eğitmenlerinin arasında genel bir uzlaşma olduğunu aktarıyor.

Yabancı dil eğitimi uzmanları 21. yüzyıldaki öğretimin o çağın araçlarını kullanması gerektiğini savunurlar. Ancak bilgisayar teknolojisini müfredatlarına etkili bir şekilde entegre edecek gelecek nesil öğretmenlerini hazırlamak pek çok öğretmen yetiştiren kurum için zor bir iş haline gelmiştir.

Bu nedenle bu çalışmanın amacı 4. Sınıf İngilizce Öğretmenliği adaylarının öğretmen olduklarında derslerinde teknoloji kullanma kapasitelerini artırmaktır. Bilgisayar teknolojilerine karşı tutumları, bilgisayar ile ilgili öz yeterlilikleri ve bilgisayar bilgilerinin geliştirilmesi de planlanan diğer unsurlardır. 10 haftalık çevrimiçi bir ders aracılığıyla temel bilgisayar ve internet kullanma becerileri ve BİT (Bilgi İletişim Teknolojileri)'lerin derslerde neden kullanılması gerektiğini açıklayan teorik bilgiler öğretmen adaylarına verilmiştir. Öğretmen adaylarına aynı zamanda teknolojinin İngilizce Öğretiminde uygulamalarına ilişkin örnekler sunulup Çeşitli grup ve ikili çalışma ödevleri verilerek teknolojiyi kullanıp kullanamadıkları izlenmiştir. Her öğrenci yaptığı uygulamaların linklerini koyduğu bir blog açmış, araştırmacı ise tüm

öğretmen adaylarının linklerini birarada bulundurmak üzere bir sınıf bloğu oluşturmuştur (www.ide401.blogspot.com). Böylelikle tüm öğrenciler birbirinin yaptığı çalışmaları görebilmiştir. Çevrimiçi ders, 4. Sınıf 'Yabancı Dil Öğretiminde Materyal İnceleme ve Geliştirme' dersinin çevrimiçi bir uzantısı olarak 27 İngilizce Öğretmeni adayı ile yapılmıştır. Bu dersi alan öğrenciler sınıfta teknoloji destekli bir İngilizce dersi tasarlayıp, arkadaşlarına ders anlatmışlardır. Bir ders planı hazırlayıp kullandıkları teknolojik aracı neden seçtiklerini de bu planda açıklamışlardır.

İngilizce öğretmen adaylarına bilgisayar özyeterlilikleri, bilgisayarla ilgili tutumları ve bilgisayar ile ilgili bir anket ve bilgisayar ile bilgilerini yoklayan bir kontrol listesi ön-test ve son-test olarak uygulanmıştır. Çevrimiçi dersin bitiminde araştırmacı öğretmen adayları ile yüz yüze görüşmeler yapıp onların öğrendikleri uygulamalarla ilgili fikirlerini ve gelecekte bu uygulamalarla ilgili ne yapıp/yapmayacaklarını sorulmuştur.

Öğretmen adaylarının çevrimiçi ders süresince gelişimleri araştırmacı tarafından izlenip, tamamladıkları uygulamalar ile ilgili geribildirimler içeren e-mailler gönderilmiştir. Bu geribildirimler tüm sınıfa göndererilerek öğrencilerin birbirlerine gelen geribildirimleri görüp yeni bilgiler öğrenmeleri hedeflenmiştir.

On haftalık çevrimiçi dersin sonunda bu çalışmaya katılan öğrencilerle iletişimi devamlı kılmak için araştırmacı öğrencilere kişisel bloglarını kapatmamaları ve sınıf bloğunu takip etmelerini önerilmiştir.

Anahtar Kelimeler : Bilgisayar Destekli Dil Öğretimi (CALL), Teknoloji Entegrasyonu, İngiliz Dili Eğitimi, Web 2.0 araçları, Eğitim Teknolojileri.

ABSTRACT

IMPROVING PRESERVICE ENGLISH LANGUAGE TEACHERS' ICT SKILLS & DEVELOPING POSITIVE ATTITUDES TOWARDS THE USE OF TECHNOLOGY IN LANGUAGE TEACHING THROUGH AN ONLINE COURSE

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It can be widely observed that the rapid developments in technology have large effects on teacher training. As the learner profiles have changed with the modern age, the teacher profiles need to change in accordance with the needs of the learners. Amiri (2000) states that there is a general agreement among teachers and teacher educators that information technology (IT) has become so important, both in our everyday lives and in education that it is necessary for teachers to know how to use IT effectively in their teaching.

Experts in foreign langue teaching believe that teaching in the 21st century must exemplify the tools of that age. However, preparing future teachers who know how to integrate computer-related technology in their curriculum effectively remains a challenging goal for many teacher education programs.

Therefore, the purpose of this study is to increase the capacity of fourth grade preservice English language teachers in terms of integrating technology into their courses when they become langugage teachers. Their attitudes towards computer technologies, computer self- efficacy and computer literacy were the areas planned to be fostered. Throughout a ten week online course preservice teachers were given basic theories grounding the ICT (Information and Communication Technology) usage, basic skills about computers and the Internet. They were also shown some example applications for the integration of technology into English language teaching. They were assigned some pair and group work assignments to see if they could use technology. Each student had a blog where s/he provided the links of the applications

s/he had created. The researcher also started a class blog where she provided the links to the blogs of the preservice language teachers. By this way all preservice teachers had the chance to see each other's work. The online course was implemented as a component of a 4th year course 'Language Teaching Materials Adaptation and Development' with a group of 27 preservice English language teachers. The students participating the course taught one technology supported lesson in their classroom to their friends. They prepared lesson plans and explained why they chose a specific tool to teach a specific skill.

The preservice language teachers were given one questionnaire on computer self-efficacy, computer attitude, one checklist on ICT literacy as pre-test and post-test. There were face-to face interviews between the researcher and the preservice language teachers at the end of the course to find out what they thought about the Web 2.0 tools they had learned and what their plans for the future about using or not using them are.

The development of preservice teachers was tracked throughout the online-course by the researcher. The researcher also sent e-mails to the class members about their work to give feedback. She sent these e-mails to the class as a whole so that everybody could see what comment the teacher made about their work. In this way they could also learn something they hadn't known.

To enable further communication with the students who participated the study, the preservice teachers were advised to follow the class blog and not to close their individual blogs.

Keywords: Computer Assisted Language Learning (CALL), technology integration, English language teaching, Educational technology, Web 2.0 tools.

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do not have an order to happen in life. I thank them both for accepting me as a ‘studying’ mother without questioning ‘why?.

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LIST OF ABBREVIATIONS

ADSL **:** Asymmetric Digital Subscriber Line

ACT **:** Attitudes toward Computer Technologies

CAA **:** Computer Aided Assessment

CAE **:** Computer Assisted Education

CAEP **:** Computer-Assisted Education Project

CALL **:** Computer Assisted Language Learning

CILT **:** The National Center for Languages and Association for Language Learning

CMS **:** Course Management Systems

CT : Computer Technologies

ELT **:** English Language Teaching

HEC **:** Higher Education Council

ICT **:** Information Communication Technologies

ISDN **:** Integrated Services Digital Network

IT **:** Information Technologies

ITEC **:** Innovative Technologies for an Engaging Classroom

LMS **:** Learning Management Systems

MoNE **:** Ministry of National Education

MOODLE **:** Modular Object Oriented Dynamic Learning Environment

NLC **:** Networked Learning Community

OECD **:** Organization for Economic Co-operation and Development

PC **:** Personal Computer

SCT **:** Self-Efficacy for Computer Technologies

SNS **:** Social Network Systems

TPCK **:** Technological Pedagogical Content Knowledge

VLE **:** Virtual Learning Environment

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CHAPTER 1

INTRODUCTION

1.1. Introduction

Advances in computer technology brought us enormous capability in processing and storing information since the 1960s with the advent of computers. More striking advances have occurred in technologies useful in education just in the past decade. ICTs offer many environments for learning. As Pelgrum (2001, pp 163) states 'ICT is not only the backbone of the information society, but is also presented as an important catalyst for inducing educational reforms that change our students into productive knowledge workers' and it is a widely accepted truth that the students of the 21st century are born into a world of technology. They can reach the information easily by using the Internet and they are able to access different technological tools which are widely used in society. Prensky (2001) calls these children as 'Digital Natives'. He says that the students today are all 'native speakers' of the digital language of computers, video games and the Internet. The digital natives of Turkey are at primary, secondary and high schools and they are undergoing an education program in which technology integration is still in process.

As Turkey is trying to catch up with the developments in education, many projects including the use of effective technologies have been implemented in schools. One of the recent projects by the government is the Fatih Project, through which the Ministry of National Education (MoNE) is trying to implement the effective integration of technology at schools. Forty-two thousand schools are aimed to be equipped with good technological infrastructure and tablets by the end of 2014. However, the huge investments in the purchase of the technological equipments are not observed in the training of the teachers to use these technologies. Hence, some problems arose in terms of finding the teachers who are qualified enough to teach with technology to the digital natives.

1.2. Background of the Study

The integration of technology in education arose the interest of many researchers around the world. Hence, many studies may are carried out to explore various subjects about ICT in education. Especially the studies about the training of teachers in terms technology are important as regards to the subject of this study.

As Moersch (as cited in Ertmer, 2003) states, teachers who completed technology courses still did not know how to create or implement small or whole group activities that incorporated meaningful uses of technology. Unfortunately, this also has been true for most teacher education technology courses (Mousund and Biefeldt, 1999 as cited in Yıldırım, 2000). Although The Higher Education Council (HEC) offers three or more credit hours of technology instruction, recent survey data suggested that most teacher education faculty still do not feel that technology use is being effectively modeled for our future.

Thus, this study is an attempt to suggest a solution to this problem by offering a technology integration model for English Language Teaching (ELT) programs. The model it offers is based on learning and doing as suggested as the lacking component of the teacher training programs to educate qualified teachers with enough knowledge about technology and its use in education. According to the proceedings published after a recent symposium by Private Schools Association (Ozel Okullar Birligi Dernegi, 2013) it was agreed that although schools own the best technological infrastructure and the best digital contents are purchased, if teachers can not utilize these, our national sources will be wasted. It was also stated in the proceeding that teachers and the adminitrators' interests, perceptions, views and knowledge is at utmost importance. For this, short-term inservice trainings are not satisfactory, instead teacher training faculties should include digital education within their curriculum. It is also suggested to facilitate distance education for preservice teachers to learn about technology.

As mentioned above, this study is suggesting a model for the ELT programs. In this model the preservice teachers are offered a 10 week online course at their fourth year at the faculty. The online course included the introduction of Web 2.0 tools, educational software, related pedagogy and the implementation of these Web 2.0 tools and software by the preservice teachers. Preservice teachers register for the online course, get the course material, and apply the Web 2.0 tool for designing an English lesson. Moreover, they conduct a microteaching in their class.

In the study, it was the reseacher's aim to observe the changes in terms of attitudes, self-efficacy and computer literacy of the preservice teachers as well. As they will be the teachers in the future, their beliefs about the use of technologies in their lessons is of vital importance. No matter how much a teacher knows about technology, a lot depends on her attitudes and computer self-efficacy in terms of use in lessons.

1.2.1. The Previous Technology Projects By Ministry of National Education (MoNE) in Turkey

The Grand National Assembly of Turkey, Ministry of Family and Social Policies and Unicef held a congress titled 'Information and Communication Technologies in Turkey and the use of ICT by the Children and the Youth'. According to the report (Beger et al., 2011) prepared after this congress, it was found out that 80.2 % of Turkish secondary and high school students own mobile phones, 71.4 % own a computer, 97.9 % are Internet users. According to one study (Atıcı, 2010 as cited in Beger et al., 2011), 73 % of children aged 6-13 have an e-mail account. In another study by Livingstone et al. (as cited in Beger et al., 2011) of 500 Turkish users of SNS (Social Network Systems) aged 9-16, 100 % of respondents reported using Facebook. High school adolescents prefer the Internet for communication and socializing, and as age increases social networking and instant messaging become more important for them than other online activities. All this information shows us that secondary and high school Turkish students have computers and mobile phones, usually with the Internet connection. It is also understood that these tools are generally used for social networks.

In addition to the information above, it is necessary to give brief information about the projects of MoNE towards the integration of technology at schools. When the projects carried out are concerned, it can be reported that they were helpful to lead Turkey towards an education system which makes use of more and more technological equipment.

If the projects were to be summarized briefly, it can be expressed that it all started 24 years ago with the 1988 Computer-Assisted Education Project (CAEP) (Yılmaz, 2011). In 1992, with the financial support of the World Bank, there was the National Education Development Project (NEDP) and it was completed in 1997 (MEB EĞİTEK, 2002 as cited in Yılmaz, 2011). Throughout this project some teachers were trained through in-service training to teach other teachers at their schools. The number

of teachers who were trained by the collaboration of universities for this aim was 3180. This number was achieved between the years 1991 and 2002. In spite of all the effort, little importance was given to integrating implementation within the curriculum and instead the software to be used was given primary importance. Many educational software development projects were carried out by different companies; however, some of the software was not found out to have the expected qualities and be sufficiently original (MEB 1991, as cited in Yılmaz, 2011).

Another project was 'Catching the Era in Education 2000' project. The general aim was to generalize the use of information technologies, primarily in primary education towards integrating it into the system (MoNE; 2002, MoNE; 2004 as cited in Yılmaz, 2011). For this aim the course of 'Computer Sciences' began to be taught as an elective starting from the fourth grade in primary education in 1998. After this development, Department of Computer Education and Instructional Technology began to be opened within the education faculties. In addition, all departments at the education faculties had a compulsory 'Computer Science Course.'

Then the computer labs at school were turned into Information Technologies (IT) classrooms to use the Internet for teaching purposes (DPT, 2004, MEB APK, 2002; MEB EĞİTEK, 2003 as cited in Yılmaz, 2011). Kök (2006) lists some more details about this era in her literature review on 'ICT integration into classrooms in Turkey':

- 8950 ICT classrooms established in year 2004. 6400 ICT classrooms have been planned for the year 2005. Distribution of 45064 PCs (Personal Computers) for the use of teachers took place in 2005 and the hardware components were supported by related instructional and administrative software and web-based applications. Internet access options like satellite, ISDN (Integrated Services Digital Network) or ADSL (Asymmetric Digital Subscriber Line) had been provided for 42.534 schools. Connection for about 20000 schools had been provided. Despite all these developments, the goal of integration of ICT into the teaching process could not be achieved because at the beginning the generalized implementation of Computer Assisted Education (CAE) was attempted. According to he MoNE, ICT Policy Draft Document, a teaching program modification was necessary (MoNE, 2003 as cited in Yılmaz, 2011).

- After the year 2000, within the Basic Education Project, MoNE gave great support to schools in terms of service, maintanence and the Internet connection. Moreover, many inservice training programs have been carried out to train teachers throughout the projects like 'Intel Teacher Training Project', 'The Microsoft Innovative Teachers Program' and 'Information Technologies and the Formatter Teacher Program.'(Yılmaz, 2011).

The last project which is still being carried out during the time of the research is called 'The Fatih Project', which stands for 'Movement of Enhancing Opportunities and Improving Technology'. Throughout this project all schools will be equipped with 'Smart Classes'. That is 42 thousand schools and nearly 620 thousand classes will be equipped with smart boards (a touch panel LCD) and students will be given 16 000 000 tablets by the MoNE by the end of the project. Fatih Project is planned to be completed in 4 years and will cost approximately 3-4 billion USD ("Fatihproject").

According to a report by MoNE (2011 in Yılmaz, 2011), the main philosophy of Fatih Project is to make each student acquire 21st century competencies and to enable teachers to create effective, beneficial and enriched educational atmospheres. It targets at providing necessary equipments for classrooms, the Internet connection to all classrooms, preparing e-contents for all lessons, and creating web platforms to enable teachers to integrate IT into classrooms and develop content based activities.

The project started on February 6th, 2012 in 52 schools in 17 provinces across Turkey with a total of 12,800 tablet Personal Computers (PCs) issued to ninth grade students as part of a pilot program and is planned to be carried out in all schools until 2013-2014 educational year.

Bilgen (2012) mentions that it cannot be denied that the Fatih Project is a bold step, and has the potential to revolutionize the education system in Turkey. However, he claims that there may be some debates around the questions regarding the necessity of implementing such a billion-dollar project, at a time when there are still imbalanced conditions in every aspect of Turkish education system, including, but not limited to, the university exams, language of the education, as well training programs for teachers.

Another recent project is named as the 'Innovative Technologies for an Engaging Classroom' (ITEC), which is financially supported by the European Commission 7th Framework Program. In this project, methods which have already been

used and alternative methods are studied in terms of usability in classrooms of 15 European Countries. These schools are under the Ministry of Education umbrella in their countries. The project started in September 2010 and will end in September 2014. The project, which is composed of 5 phases and starts dissemination from the third phase, is carried out by EĞİTEK. Teachers (75 in Turkey) who take part in the project encourage students to revise basic concepts of a lesson and the other topics in the curriculum. For this aim, some web tools are used to carry out innovative lessons by teachers of different subjects. These web tools are mostly categorized under the term 'Project-Based Learning Model' (Muharremoglu, 2012).
As the ongoing projects and the previous projects support, it might be said that Turkey has taken great steps towards technology integration at schools in the recent years with all schools having IT labs and the Internet access. Despite all these, there are some problems in terms of integrating technology into courses at schools.

According to the study of Akbaba- Altun (2006), one of these problems is the insufficient in-service training courses for teachers, especially in content areas. Training courses are provided by unqualified trainers and are not appropriate for teachers' needs and levels; besides these in-service training courses also have a lack of hands-on activities and are not offered for school principals and teachers. Deriving from the findings of this study, some of the factors which have affected the effective launch and utilization of ICTs for educational purposes in Turkey are listed as:

- Inadequate ICT infrastructure including computer hardware and software, and bandwidth/access
- A lack of skilled manpower, to manage available systems and inadequate training facilities for ICT education
- Resistance to change from traditional pedagogical methods to more innovative, technology-based teaching and learning methods, by both students and academics
- The over-dependence of educational institutions on government for everything has limited institutions' ability to partner with the private sector or seek alternative funding sources for ICT educational initiatives
- Lack of effective co-ordination of all the various ICTs for education initiatives (Akbaba-Altun, 2006).

This list shows the major problems faced in the development of ICTs in Turkey. It is believed that if these problems are solved, ICTs will have more positive effects in the teaching and learning process.

According to another study by Göktaş and Yıldırım (2003), it is seen that importance given to integration of ICTs into education increased in Turkey. As they state, Turkey faces great educational challenges with great number of people to educate, a very large educational system, poor economic situation, inadequate technologies and mass number of students and teachers. In spite of these negative conditions, Turkey has to take required measures in order to catch up with the EU (European Union) standards in integrating ICTs into its educational system (Goktas, Y. &Yildirim, Z., 2003). In Turkey, the objectives of ICTs at primary level are defined by the MoNE under specific definitions which focus mostly on making students computer literate and able to use computers to solve the problems emerged (Kök, 2006).

The findings from the stated studies portray us the profile of the students and the Turkish education system in terms of technology integration efforts. There is a student profile with a high speed Internet access and technological tools and an education system spending a lot of money for the integration of technology into classrooms. In the studies listed, it is also mentioned that technology integration is not fully accomplished due to some problems such as lack of technology-based teaching and learning methods and inadequate training facilities for ICT education, inadequate software, hardware and the Internet access. In other words, problems can be categorized as equipmental problems and teacher skill problems. The first group is related to the school whereas the second group of problems are basically the concern of teacher education faculties or teacher training programs.

After having set the background, it is necessary to go deep into the teacher education process to understand the problems arising from the technology understanding, implementation and integration of teachers. As the researcher focuses on English Language Teaching, the situation at English Language Teacher Education will be discussed.

1.2.2. English Language Teacher Education Programs in Turkey

In Turkey teacher candidates are trained at the education faculties to become English Language Teachers. There are also students from Linguistics, English

Language and Literature, American Language and Literature or Translation departments who take pedagogical formation courses offered by education faculties and become English Language Teachers. The program carried out in education faculties is mostly four years and accompanied by an intensive language preparatory year at the beginning of the first term, which is five years totally. Preservice teachers take courses mostly on linguistics, English language teaching and learning theories and practice.

The curriculum carried out at the education faculties is designed and carried out by the Higher Education Council (HEC) and composed of mostly obligatory and a few elective courses. Departments decide what materials to use and which year to accommodate a course. HEC has the power to make changes in the curriculum of English Language Teacher Education as well as the other programs carried out in universities. Accordingly, HEC changed the curriculum for English Language Teacher Education in 2006-2007 academic years. The council updated the program to place more emphasis on practice rather than theory. They offered more hands-on practice courses for preservice English Language Teachers. This recent development sets out to train English Language Teachers to satisfy the needs of the 21st century students. According to the report " European Profile for language teacher education in the 21st century" written by Kelly et al. (2004) after a research in eleven European teacher education institutions in different countries, English Language Training programs should include the following elements regarding training in ICT for pedagogical use in the classroom:

- Trainee teachers are taught how to use ICT effectively. They recognize the added value of using ICT in the language classroom.
- Trainee teachers learn how to integrate ICT into other teaching areas and are aware of how it contributes to several learning outcomes at once.
- Trainee teachers use ICT as a support and resource, not as an end in itself.
- When using ICT in the classroom, trainee teachers encourage learner autonomy, combining ICT with tasks and projects that highlight how it can be used independently outside the classroom context as part of ongoing learning

As regards to the aim of this study, the technology components of the English Language Teacher education program in Turkey will be focused on. The preservice teachers are offered Computer courses: Computer I, Computer II in the first and second

semesters. In these courses pre-service English Language Teachers get the basic computer literacy, Microsoft Office programs and access to the Internet. In the fourth semester 'Instructional Technology and Material Design' is another compulsory course that is taken by the preservice English Language Teachers. Computer I and Computer II are courses offered by the education faculty, however 'Instructional Technology and Material Design' course might be offered by the English language departments if there are qualified lecturers. Hence, at some universities this course is offered by the education faculty or by English language teaching departments according to the existence of qualified lecturers within the English Language Teaching Departments. In the seventh semester, preservice teachers are offered 'Language Teaching Materials Adaptation & Development'. In addition, at some universites preservice teachers are offered CALL courses for two semesters. This course is also carried out in English and gives preservice teachers wider opportunities to delve into the Internet and the use of technology generally. The program designed by the HEC gives opportunities to departments to place the selective courses into their curriculum according to the needs of the students and the availability of the professors to teach those specific courses. When the programs of the universities are investigated, it is seen that some of them even do not offer CALL as a selective course because of some problems at their faculty in terms of staff and time.

The state university, which is the context of the study, offers CALL I and CALL II courses in the 6th and 7th semesters. The online course was like a continuation and opportunity to do some more practice and get to know some more computer technology tools for teaching English.

If the English language teachers are asked to use technology with the pedagogy, stand-alone courses may not be enough. There should be some more opportunities to practice and follow the developments for the preservice teachers.

1.3. Statement of the Problem

Despite an increased interest in the use of technology in ELT, it is surprising that so little empirical research has been conducted on the topic, especially from the perspectives of preservice English language teachers. The studies usually focus on the perspectives of teachers working in the field and very few studies have focused on

alternative solutions on empowering EFL teachers with the necessary knowledge about IT through hands-on practice.

This study aims at offering a course package for integrating technology into English Language Teacher Education programs by combining the subject matter with technology. As stated before, the program administered by the HEC does not involve many courses which require the technology applications in English Language Teaching. However, the preservice teachers have many pedagogical and linguistic courses. They also go to practicum schools in the fourth year and prepare lesson plans and teach in their classes. The ELT curriculum is full of lessons for the preservice teachers to follow, reports to type and microteaching to do. Hence, they do not have the necessary time to have some additional must courses. At this point the time allocation problem may be solved by following an online program for teaching technology components necessary for the teacher candidates. The preservice English teachers need more practice and information on the use of technology in teaching. To this end, this study offers an online course on Moodle (Modular Object Oriented Dynamic Learning Environment) including the learning and application of Web 2.0 tools for ten weeks.

1.4. Purpose of the Study

The designed online course for technology integration of English Language Teachers 'Educational Technology for English Language Teachers' aims to observe preservice English language teachers while learning about the use of ICT in ELT throughout an online course. Their technical knowledge about computers and the internet, attitudes towards computer technology and self-efficacy regarding technology use along with the online educational technology course is followed. The researcher tried to find out if the online course had an effect on these fields. The subject matter and pedagogy enhance the computer literacy of preservice EFL teachers, especially to make them aware of various Web 2.0 tools for teaching English. Thus, the general aim of the study was to train preservice language teachers on ICT usage in language teaching and make them comfortable while using different software and the Internet. The study also aimed to inspire and encourage the preservice teachers to integrate technology into teaching English.

Another point the study wanted to underline was the awareness of using different free software on the Internet by evaluating the websites. There are several

websites on the Internet, yet an English Language Teacher should evaluate these websites in terms of her/his students' needs and decide if they can be used in the classroom.

Another important aim of this study was also to make preservice teachers think on how to use what they have learned throughout the online course. Hence, at the final stage of the study students were assigned to design a course for teaching a skill (listening, reading, writing, speaking) or a grammar topic by using any of the software. This would give them an opportunity to think about the Web 2.0 tools carefully to use them for educational purposes. They had to know the qualities of their tool and the requirements to teach a specific skill. They looked for a match between their pedagogical purposes and the qualities of a specific tool. This process, which lasted for a week, made them see that it required an effort and a detailed plan to use a technological tool in classroom to teach English.

1.5. Significance of the Study

Training the language teachers is a very important process in Turkey. To catch up with the developments in every field, Turkish citizens should learn English in the most effective way. So far there have been many complaints from the learners of English about not having satisfactory language education at their schools. Language learners mostly believe that they know the 'Grammar' of English but cannot speak or write in English. To acquire all the skills, they should be given more opportunites to speak, write or listen in English. This might be only possible with the teachers who use communicative and constructive approaches in their lessons. In this respect, this study sheds light on the way for preservice teachers to improve themselves in accordance with the individual learning styles of their learners. Teachers should update their teaching knowledge and skills throughout their career. They should be the facilitators in the classrooms, but not the mere source of information. Students will learn in the classroom with the assistance of the knowledge they had before, they will construct their own meaning from the context provided by the teacher. Using technology in this respect can be considered as a constructivist technique for teaching English. For this reason, preservice teachers should gain the necessary pedagogical and technical knowledge on using technology in their teaching.

Hence, this study offers an online course package for language teacher education programs and acknowledges individual language teachers about the use of ICT while teaching English. There are some studies on technology integration in teacher education programs in other fields. However, the number of technology integration studies in English Language Teacher training programs is not many. This study also aimed to inform English language teachers who are already working in the field about ICT in ELT.

A learning platform, Moodle, was used for delivering the online course. By using Moodle as the learning platform, this study also suggests convenient and free software for online education. With the opportunites of preparing various activities for a student-centered learning, 'Moodle' may help the teachers scaffold their students' learning. The procedure followed on the Moodle will also be explained in detail.

1.6. Research Questions

Through an online-course the fourth year preservice English teachers will learn about ICT use in ELT in general. They are supposed to learn how to use ICT in ELT properly. To this end, the research questions below had been addressed:

1. What is the attitude of preservice English teachers' towards computer technologies?
2. Is there any change in the attitudes of preservice English teachers' towards computers after having followed an online technology integration course?
3. How do the preservice English teachers view themselves about using computers?
4. Is there any change in the computer self-efficacy perceptions of preservice English teachers' towards computers after having followed an online technology integration course?
5. What is the level of preservice English teachers in terms of computer literacy?
6. Is there any change in the computer literacy level of preservice English teachers after having followed an online technology integration course?
7. What are the perceptions of the preservice English teachers on the use of technology for learning and teaching English?

8. How do preservice English teachers envision the use of technology within their future classes after the online educational technology course?

1.7. Assumptions

For this study the following assumptions were made:

All participants in the group answered the questions to all data collection tools of this study accurately and sincerely. All participants completed the online educational technology course.

1.8. Limitations

The following limitations were relevant to the study:

The sample size of the study was limited to twenty seven preservice teachers. The validity of the study was limited to the honesty of subjects' responses to the instruments used in this study.

The Web 2.0 tools and software included in this study are chosen among a variety of Web 2.0 tools and software for enhancing teaching and learning English. Most common used ones and the ones which are easy to use are preferred. As technology is improving day by day some new Web 2.0 tools and software might be introduced or some of the Web 2.0 tools and software used in this study might be replaced with some better technological tools.

The preservice teachers in this study received 5 % of their final grade for their 'Material Development & Adaptation for Foreign Language Teachers' course out of the online educational course which was used as the treatment in this study. Some students might have felt threatened with their grades and then have completed their tasks for the online educational technology course.

1.9. Operational Definitions

Technology: It is a general term that can be applied to a variety of administrative and instructional applications involving calculators, overhead projectors, telephones, televisions and so forth. In this study technology refers primarily to

computers and computer-mediated technologies, overhead projectors, voice-recorders, video recorders and audio tapes.

Information Technology (IT): It refers to anything related to computing technology, such as networking, hardware, software, the Internet, or the people that work with these technologies ("information technology").

Information Communication Technology (ICT): This term generally relates to those technologies that are used for accessing, gathering, manipulating and presenting or communicating information. The technologies could include hardware (e.g. computers and other devices), software applications, and connectivity (e.g. access to the Internet, local networking infrastructure, and video conferencing) (Toomey, 2002 as cited in Unesco Report, 2003). ICT refers to technologies that provide access to information through telecommunications. It is similar to Information Technology (IT), but focuses primarily on communication technologies. This includes the Internet, wireless networks, cell phones, and other communication mediums ("information communication technology").

Pre-service teachers: Students who are studying at education faculties to become teachers.

Attitude: Attitude is a manner of acting, feeling or thinking that shows one's disposition or opinion. Tezbaşaran (1996) defines attitude as the learned tendency of reacting negatively or positively towards a specific object, situation, organization, concept or other people.

Faculty: For the purposes of this study the term faculty will include all current, full-time and part-time faculty members who are employed by the university participating in the study.

Web 2.0: This term basically refers to the transition from static HTML Web pages to a more dynamic Web that is more organized and is based on serving Web applications to users. Other improved functionality of Web 2.0 includes open communication with an emphasis on Web-based communities of users, and more open sharing of information. Over time Web 2.0 has been used more as a marketing term than a computer-science-based term. Blogs, Wikis, and Web services are all seen as components of Web 2.0 ("Web 2.0").

Self- efficacy: It is an individual's confidence in his or her ability which may impact the performance of tasks (Kinzie, Delcourt, and Powers, 1994).

Perception: Views or opinions held by an individual resulting from experience and external factors acting on the individual.

Computer Assisted Language Learning (CALL): CALL means learning language in any context with, through, and around computer technologies (Egbert, 2005).

Software: Computer software is a general term that describes computer programs. Software consists of lines of code written by computer programmers that have been compiled into a computer program ("software").

Web 2.0: Web 2.0 is term that was introduced in 2004 and refers to the second generation of the World Wide Web. The term "2.0" comes from the software industry, where new versions of software programs are labeled with an incremental version number. Like software, the new generation of the Web includes new features and functionality that was not available in the past. However, Web 2.0 does not refer to a specific version of the Web, but rather a series of technological improvements ("Web 2.0").

CHAPTER 2

LITERATURE REVIEW

2.1. Introduction

In this chapter, first there will be an introduction about the use of technology in education and then some sample studies from the world will be introduced. The reason why we should have ICT in education will be discussed. The theoretical perspective underlying the use of technology in education will be laid out with some sample studies. Then the focus will shift to the use of technology in English language teaching in particular. The ways in which technology can foster language learning will be explained with the support of related studies. Then the Web 2.0 tools and the software (which are used in this study to enhance language teaching) will be explained and the specific features of these tools and software for teaching various language skills will be discussed. How these Web 2.0 tools and software can be integrated into language teaching will also be discussed throughout the technology integration models for teacher training programs in general and then English language teacher training programs in particular. Finally, the theoretical perspective behind the need for this integration will be explained by the sections 'Technology literacy for teachers' and 'Technological pedagogical content knowledge.'

2.2. Theoretical Perspective

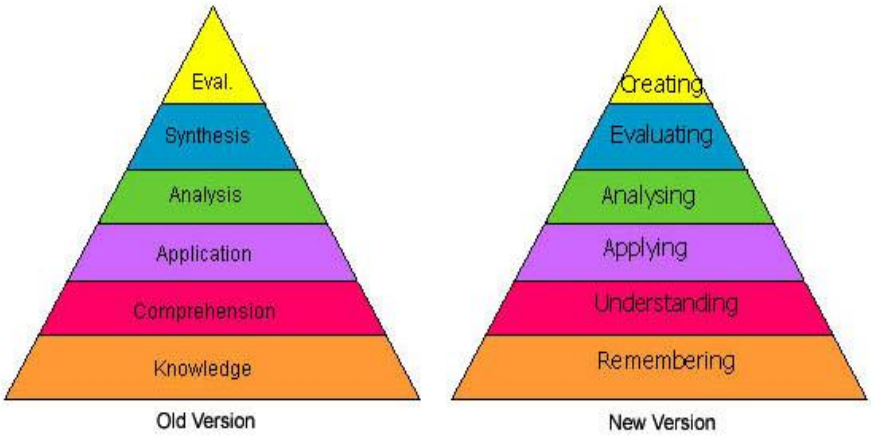
Constructivism and sociocognitive psychology which are brought to the field by Piaget and later Krashen (as cited in Nguyen, 2008) are facilitated by the Internet technology. Constructivist learning –the idea that teachers should offer hands–on experience for students, so they can create meaning for themselves- is easier to design and set up electronically than using other media. Given these ideas about constructivism, experiential learning can be less demanding with electronic media because large amounts of data are available and students can easily build and revise electronically. Teachers need to know which technological tool to use to promote learning. Besides, it is the viewpoint of the teacher which shapes the use of a

technological tool. For example, if the teacher aims to use a technological tool with a behaviouristic approach, s/he can use a specific tool only to design a mechnanical drill. If the teacher aims to make her students create something with what they already know, which means s/he follows a constructivist approach, s/he can use a technological tool with that perspective. That means, the significant point is the pedagogical approach and the aim of the teacher for teaching when using technological tools. At this point it is necessary to mention about the 'Bloom's Digital Taxonomy' which is a concept brought by Samantha Penney as the digital version of 'Bloom's Taxonomy', because it is also of vital importance to employ a technological tool for a specific teaching aim suitable to the thinking skills of the students.

In 1956, Benjamin Bloom classified important levels of intellectual behavior for learning with a group of educational psychologists. As called the 'Bloom's Taxonomy' this classification shows the levels of learning in a hierarchy from lowest to the highest and it signals the teachers that different teaching methods will promote different learning levels ('Bloom's taxonomy'). In 2001 Anderson and Krathwohl revised Bloom's original taxonomy to make it more relevant to the newer educational theories by combining both the cognitive process and knowledge dimensions.

As defined by Munzenmaier & Rubin (2003), Bloom's Taxonomy was revised

a) to refocus attention on the importance of the orginal version in developing accountability programs, designing curriculums and designing assignments
b) to update the original taxonomy based on new understanding of learning and new methods of instruction



Figur 1. Bloom's Taxonomy Old Version & New Version. Retrieved 3rd June, 2013 from: http:www.odu.edu/educ/roverbau/Bloom/blooms_tax_htm.

As seen in Figure 1 in the revised taxonomy, evaluation is no longer the highest level of the pyramid. Munzenmaier & Rubin (2013) state that a new category, 'creating' is at the highest level. This category was known as 'syntheses. Another significant change is that category names are no longer nouns, but verbs. As a result, objectives developed using the revised taxonomy now describe learners' thinking processes rather than behaviours.

In 2008 Churches introduced the 'Digital Taxonomy', as seen in Figure 2, which took the revision a step further by adding multimedia technology to the taxonomy and the associated learning apps that engage from the integration of Web 2.0 tools that emerge from the integration of Web 2.0 technologies into the learning environment (Gonzalez-Manja & Albright, 2008) Bloom's Digital Taxonomy is not about the tools or technologies rather it is about using these to facilitate learning.

Figure 2. Bloom's Digital Taxonomy. Retrieved 6th May, 2013 from http://www.mtlsd.org/mellon/teams/ironbrigade/bloomsdigitaltaxonomy.asp.

As depicted in Figure 2 teachers may design effective lessons by integrating the suitable Web 2.0 tools for their teaching according to the learning behavior shown in the taxonomy. This might help teachers choose among the tools suggested for that specific learning category from the lowest to the highest level.

In addition to these, Nguyen (2008) talks about the pedagogical features of the Internet technology as giving students immediate feedback. Students do not have to wait for the teacher to return marked assignments or exams to know if they understood the material.

Moreover, student learning can be individualized with the help of the Internet. With the help of the educational software, students proceed at their own pace through materials. This is a great opportunity for some learners who find it difficult to follow a lesson because of being slower or faster than others.

It is also possible to address various learning styles with the help of computer technologies. Often similar material is available in text, graphical, audio and video format. For example, the same context can be given as a video for a visual learner and as a podcast for an auditory learner.

When the students are considered, it is generally accepted that they are more motivated by using computers and talking to others using technology from e-mail, chat, conferencing as well as recently wikis, blogs, and Web 2,0 as emerging technologies in language learning (Godwin-Jones, 2005).

One of the most important features of ICTs in education is that learning and teaching can be anytime, anywhere. The Internet does not close, people who have software and computer at home can work at their convenience.

For Warschauer (2004), it was 15 years ago that the computer was considered just as a tool, it is not an end to itself; it is regarded as a tool for being able to use computer and get information on the Internet. Besides, the Internet is useful for students because more authentic material is easily available for language teaching and learning by the computer network technology as resource retrieval.

In addition, teachers can mount pedagogical material for students via the Internet. Teachers can create a personal homepage for students to come and see the detailed course times and a change, reading lists, and so on. They can also publish lecture notes and handouts or design courseware unique to web involving interaction and feedback.

Herrington and Oliver (2000 as cited in Woo & Reeves, 2007) and other online learning experts have asserted that educational applications of the Web can support and improve highly effective types of learner-to-learner interactions based upon social constructivist learning theory. The Internet communication tools, such as e-mail, listserves, and bulletin boards, allow learners to exchange information, contribute to discussions, and provide opportunities for learners to acquire examine alternative perspectives easily. Learners can communicate interactively one to one or in groups, making possible opportunities for collaboration such as team projects. Online teachers can provide, through various communication tools, guidance, advice, coaching and

feedback (Hong, Lai, & Holton, 2001). Moreover, the interactive nature of the Web allows learners to explore a variety of resources and establish connections with other knowledge domains that are meaningful to them. However, meaningful interaction is only possible with an instructional design model that fosters them

2.3. ICT in Education

The new workplace demanding the use of latest technological tools has caused the schools to integrate information and communication technologies into their curriculum for the last twenty years. As schools are preparing students who can work and live in this global world, they have to make them use computers, send e-mails, use projectors, smart phones and smart boards and other technological equipments. In fact, the main aim is enabling them to keep up with the developments in the world and to make them reach the newcoming information thanks to these technologies. Similarly, Tinio (2003) states that as the speed to reach information increases day by day, schools can not stay as places for the transfer of information from teacher to student in a fixed period of time. On the contrary, schools must promote 'learning to learn'. Duran and Fossum (2010a) support this idea by saying that in order to live, learn and work successfully in an increasingly complex and information rich society, students need to use information and communication technologies effectively. Douglas Rushkoff (EnGauge, 2003, as cited in Tinio, 2003), in 'Playing the Future', agrees: 'Our children…are the latest model of human being. Looking at the world of children is not looking backward at our own past—it's looking ahead. They are our evolutionary future'.

The EnGauge report (2003 as cited in Tinio, 2003) identified four skill clusters as essential to success in the 21st Century workplace as will be seen in Figure 3.

> These skills 'were developed through a process that included literature reviews, research on emerging characteristics of the Net Generation, a review of current reports on workforce trends from business and industry, analysis of nationally recognized skill sets, input from educators, data from educator surveys, and reactions from constituent groups. In addition, data was gathered from educators at state-level conference sessions in 10 states, surveys, and focus groups Chicago and Washington, D.C.' (as cited in Tinio, 2003).

Digital Age Literacy	
Functional literacy	Ability to decipher meaning and express ideas in a range of media; this includes the use of images, graphics, video, charts and graphs or visual literacy
Scientific literacy	Understanding of both the theoretical and applied aspects of science and mathematics
Technological literacy	Competence in the use of information and communication technologies
Information literacy	Ability to find, evaluate and make appropriate use of information, including via the use of ICTs
Cultural literacy	Appreciation of the diversity of cultures
Global awareness	Understanding of how nations, corporations, and communities all over the world are interrelated

Inventive Thinking	
Adaptability	Ability to adapt and manage in a complex, interdependent world
Curiosity	Desire to know
Creativity	Ability to use imagination to create new things
Risk-taking	Ability to take risks

Higher-Order Thinking	Creative problem-solving and logical thinking that result in soundjudgments

Effective Communication	
Teaming	Ability to work in a team
Collaboration and interpersonal skills	Ability to interact smoothly and work effectively with others
Personal and social responsibility	Be accountable for the way they use ICTs and to learn to use ICTs for the public good
Interactive communication	Competence in conveying, transmitting, accessing and understanding information
High Productivity	Ability to prioritize, plan, and manage programs and projects to achieve the desired resultsAbility to apply what they learn in the classroom to real-life contexts to create relevant, high-quality products

Figure 3. Skills Needed in the Workplace of the Future. Source: Adapted from EnGauge, 2003 as cited in Tinio, 2003.

In her study, Tinio (2003) adds that ICTs like radio and TV, computers and the Internet are defined as powerful tools for educational change and reform. If used appropriately, different ICTs are said to help access to education, strengthen the relevance of education to the increasingly digital workplace, and raise educational quality by, among others, helping make teaching and learning into an engaging, active process connected to real life. Thanks to technology, everybody can access information any time they want. There are online lessons on the Internet which can be followed by people who want to learn. Free materials also give the chance of practicing without going to any kind of school. Technology in a way makes education without any boundries of time and place. This makes learning lifelong.

Aspect	Less ('traditional pedagogy')	More ('emerging pedagogy' for the information society)
Active	• Activities prescribed by teacher • Whole class instruction • Little variation in activities • Pace determined by the programme	• Activities determined by learners • Small groups • Many different activities • Pace determined by learners
Collaborative	• Individual • Homogenous groups • Everyone for him/herself	• Working in teams • Heterogeneous groups • Supporting each other
Creative	• Reproductive learning • Apply known solutions to problems	• Productive learning • Find new solutions to problems
Integrative	• No link between theory and practice • Separate subjects • Discipline-based • Individual teachers	• Integrating theory and practice • Relations between subjects • Thematic • Teams of teachers
Evaluative	• Teacher-directed • Summative	• Student-directed • Diagnostic

Figure 4. Overview of Pedagogy in the Industrial versus the Information Society. Source: Thijs, A., et al. "Learning Through the Web".

It is clearly seen that teachers are the key to putting information technologies in the hands of students by integrating them into the teaching and learning process. By using technology as a natural and necessary part of classroom practice, teachers can give students the knowledge and experiences they need. Therefore, for students to be better prepared to 'learn with technology, teachers need to be better prepared to 'teach with' technology (Luke, Moore, Sawyer, 1998 as cited in Duran and Fossum, 2010a). They work at schools which require the use of technology to some extent. For example, in Turkey all secondary schools use e-okul system for administrative issues (grade reports, weekly schedule, attendence, etc.).

In another categorization created by Hepp et al. (2004), it is stated that the roles ICTs play in the educational system can be pedagogical, cultural, social, professional and administrative.

Pedagogical tool role: With the help of ICTs, teaching and learning practices can be improved throughout the use of collaborative, project based and self-paced learning.

Cultural, social and professional roles: The cultural, social and professional roles of ICTs are exercised primarily through an effective use of the vast amount of information sources and services available today via the Internet and CD-based content for the entire educational community: teachers, administrators and parents.

Administrative roles: ICTs also help the administration by keeping the information about the students, curricula, teachers, budgets and activities. Some schools also have websites which open the doors of a school to the world.

Like Hepp et al. (2004), Tinio (2003) is mainly interested in the instructional use of computers and the Internet. He states that there are three approches to the instructional use of computers and the Internet, namely:

1) Learning about computers and the Internet, in which technological literacy is the end goal
2) Learning with computers and the Internet, in which the technology is used to help learning across the curriculum
3) Learning through computers and the Internet, integrating technological skills development with curriculum applications.

2.4. ICT in English Language Teaching

As ICTs became a part of the daily life, teachers started to make use of it to make the learning environment more attractive and informative. By using related videos, playing CDs or using free software, English teachers are trying to make their teaching more effective. However, the students who have teachers like this are not as many as the traditional teachers who make use of only photocopiable materials. Studies also prove the truth that the use of ICTs have a positive effect on the foreign language teaching and learning process. Samuel & Bakar (2006) state that ICT tools have removed the time and space limitation found in traditional teaching. Classroom dialogue can now extend beyond the time and space constraints of class time (Frayer, 1997 as cited in Samuel & Bakar, 2006). Carmen et al. (2003 as cited in Samuel & Bakar, 2006) say that integrating ICT tools in teaching may increase students' competencies and their opportunities for communication. Gimbert & Cristol (2004; Waxman, 2003 as cited in Pass, 2008) state that when compared to traditional instruction, technology instruction resulted in enhanced student learning.

According to İbrahim (2010), ICTs have a vital role in the process of any language teaching and learning and has many contributions to the educational field, too. Especially, to the teaching and learning of English language they have a considerable influence on the way teachers teach and the content they deliver. The new ICTs are

much faster than the traditional ones and they might give an immediate feedback as well as the instant interaction. He also adds the idea that the ICTs are potentially more open and affordable to be owned and operated by schools, universities, private institutions, or even by individuals who can control the process according to their own needs and want for better controlled outcome and quality.

Price (1987) also states that the use of any medium of language teaching depends on the role the message in that medium plays in the language-learning situation (e.g. as model or stimulus), the content of the materials, and the ways these two interact within each student's language learning experience. Teachers can use technologies and materials effectively in innumerable ways, depending on the aims of the program and the learning preferences of the students. She is also in the idea that the use of technology in language teaching has to do with the role and content of audio and visual materials and how these interact with each student's language learning experience.

According to another report prepared by The National Center for Languages and Association for Language Learning (CILT) in 2005, Davies et al. state that images from the Internet or voice recordings can be attractive for both adult and young learners and the Internet is used to search and download online language materials. It is stated in the report that all language learners can reach to various authentic materials via the Internet. These materials might be online radio or TV, newspapers and they can be used to research course topics or pre-tasks for writing and speaking tasks. According to the report, Internet might be used for resource creation by teachers. They can use electronic worksheets, video or audio from websites and they can be easily used in a Power Point for teaching a subject in class. Another usage may be resource sharing: websites like 'Youtube' or 'Teachertube' may offer resources made by teachers for use by other teachers. Moreover, Internet might help teachers to enable their students to work independently. Teachers might guide their students to specific websites to do some interactive exercises on language and grammar. In adddition, students might be involved in online group projects which require collaboration with their classmates. It might be composing a story or summarizing a subject they have learned in class. E-mail projects can be developed with a partner school abroad. Teachers may also prepare podcasts on grammar topics or to assist with revision for pupils to use flexibly, when and where they want so long as they have their mp3 player with them or students may prepare podcasts on various topics. Wikis can be used to focus on writing skills, grammar, vocabulary, project work and listening skills. Blogs are similar to wikis in

that users can add comments to what the owner of the blog has written. Pupils can give feedback on the contributions of others to a blog, so they develop their critical thinking skills.

Moreover, the Internet is a gateway to other cultures with websites which offer insights into the lives of others. These range from sites about great writers or composers down to sites showing images of children's toys, video clips of festivals and program schedules of children's TV channels.

Butler-Pascoe and Wiburg (2003) suggest that teachers can provide students with language experiences as they move through various stages of language acquisition. Beginning with the use of multimedia to provide comprehensible input in the reproduction stage, students progress to programs that require limited responses, and in the more advanced stages, use their second language as they manipulate technology to solve a problem, complete a task, or communicate with real audiences around the world. Through technology-based experiences students develop communicative competence by using English both productively and receptively in unrehearsed contexts.

If we were to give some examples we can start by Nguyen (2008), who explains how ICTs are used in Foreign Language Teaching:

- **Presentation**: Text-based materials and audio-video materials may be used to present or recycle new language to learners. In addition audio or video recordings with transcripts can be used for presenting the language for the learners. Teachers may also use PPT presentations to teach a specific subject.
- **Practice:** A wide range of different exercise types are possible with ICT, incorporating the presentation of stimuli in varying combinations of text, audio and video format. ICT also analyses the learners' responses immediately with appropriate feedback.
- **Computer Aided Assessment (CAA):** A number of CAA programmes are available. They are marketed mostly by the publishing houses and they can be bought easily. Some of them are even available online.
- **Reference:** CD-ROMS and the Web provide language learners with a source of information for language learning tasks and activities.

- **Publishing:** A number of tools exist to help learners work on their writing/ publishing collaboratively, often linked in a local area network.
- **Communication:** Language learners and teachers can use technology to help them communicate with one another.
- **Simulations:** The computer can act as a stimulus which generates analysis, critical thinking, discussion and writing. Programmes which include simulations are especially effective as stimuli. Exercises of language learning tasks which 'simulate' real world tasks are: Webquests, action mazes, adventure games.

The use of the ICT tools, especially the tools on the web, requires some background knowledge. Teachers might search the web and try to find out the best tools to support their teaching. However, some of the Web 2,0 tools used in this study will be explained in the following section.

2.4.1. Web 2.0 tools in Teaching English

Sykes et al. (2008) state that Web 2.0 tools support collaborative and individual text and multimedia production. They also suggest that they foster attention to aspects of language use that span from appropriate lexical choice to syntactic accuracy and from rhetorical style to textual cohesion and genre specificity. They have the potential to encourage awareness of the use of written language and visual expression as forms of representation. Can, C., Bedir, H., İnözü, J. (2011) carried out a project (European Resource Centre) funded by the European Union which aimed to help educators with the use of ICT in their teaching. The project website provided clear examples of how to use them in class with pedagogical information, guides and video.

Various Web 2.0 tools are used for enhancing teaching English all around the world. Teachers become members of online communities like PLN (Personal Learning Network), or read the blogs of other English Language Teachers around the world and are inspired about using them in their teaching. Some teachers even send tweets about latest technological tools to their followers on Twitter. Therefore, through the Internet, teachers get familiar with these tools. Blogs, Wikis, Moodle, Twitter, Facebook, VoiceThread, Storybird, and Voki are some examples of these technological tools. Solomon and Schrum (2010) state that teachers bring Web 2.0 tools into the classrom,

where their importance lies in their potential to change the way we operate. In this research some of these tools were also involved in the online education that preservice teachers went through: because they had the course on Moodle, they learned how to use it with the help of the researcher. Voki, Blog, Moodle, Wiki, Storybird, Glogster, Wallwisher, Animato and VoiceThread are the Web 2.0 tools that were introduced to the preservice teachers. Then it is necessary to have a look at those tools in detail and discuss how they can be used in teaching English.

2.4.1.1. Animato in Teaching English

Animato (2009) is an assortment of tools for teachers and students to create videos with images, video clips, and music. Teachers can use music and images for high production and then share it in several ways.

Turgut and İrgin (2009) explain that Animato is designed with a constructivist approach encouraging students to navigate, create and construct their knowledge as constructivist theory focuses on making connections and creating meaning in the learning process. It enables students, teachers and researchers to take advantages of the web-based developments. This makes both in-class and homework assignments easier to do as long as as there is an Internet connection. Language learners can create unlimited videos for themselves and also share these with their friends. They can post videos wherever they want or download them for in-class presentation. With the images, text and music, Animato enables to have a very interesting and dynamic presentation.

However, it should be kept in mind that the Web 2.0 tools might be considered as constructivist or behaviouristic according to the aims and use of the teachers. While some teachers use it to enable students to create meaning from what they have learning, some might use it to enable students to hear a dialogues repeatedly in a behaviouristic perpective.

Figure 5. A screenshot from an Animato. Retrieved March, 15th, 2012 from :www.animato.com. Reprinted with permission.

There are numerous ways that Animato can be used in the classroom. It is a tool that can replace Power Point. Biogrophies, field trips, digital storytelling, science projects and more can all be captured with this quick and easy slideshow tool. Animato inspires creativity ("Animato in the classroom").

Animato is especially useful for sharing ideas and concepts that incorporate persuasion, ideals, emotions, beliefs, and personal creativity, but it can also be used to present an overview of a topic. Projects can be advertisements, book trailers, digital storytelling, poetry and poetry interpretations, and visual literacy projects, historical and personal biographies.

Students can summarize the main idea of a reading text in images and words in 30 seconds. They can create video flashcards for vocabulary keywords, they can present wonderful end of the year videos. At the beginning of the year students may create 30 second video about themselves to get to know each other. In addition, teachers can use Animato to introduce a new learning concept to students. Students can also collect pictures around a certain topic, create Animato, swap Animatos, and then use them for brainstorming a creative writing piece. It can be used as an alternative to a book report or even a way to share a story with their classmates. Moreover, students can also record their voice and practice their oral skills.

To foster reading, teachers can also prepare book trailers to engage students' interest before reading a book. Students can also create trailers to share with other classmates and they can create slideshows which demonstrate their reflection on their learning. However, teachers should keep in mind that the videos stay for a short time on Animato, to keep them longer, teachers should sign up 'Animato edu' which is free for them.

2.4.1.2. Blogs in Teaching English

The word 'blog' comes from the word 'Web log' and is usually considered as an online platform where you can enter some posts and publish with the audience. Audience can also write and send feedback to the blogs. Therefore, it is writing on the Internet to the real audience. Videos, audio recordings and various photos, pictures can be embedded into blogs. Another quality of blogs is that what you publish the latest is seen at the top part of a blog. That is, it displays writing chronologically. It may serve as an online journal. Blogs are also attractive and interesting for the audience who are surfing about various subjects. Solomon and Schrum (2010) suggest that they are really popular because they give a voice, platform, and audience to anyone who has an idea and wants to express it. In addition, blogs provide a new medium of individualized self-expression.

Another feature of a blog is that it can be designed by many contributors. In addition to straight text and hyperlinks, many blogs incorporate other forms of media, such as images and video. A blog is usually made up of the following components:

Post date –date and time the post was published
Category-category the post is labelled with (can be one or more)
Title-main title of the post
Body-main content of the post
Trackback-links back from other sites
Comments-comments added by readers
Permalink- the URL of the full, individual article

Footer-usually at the bottom of the post, often showing post date/time, author, category, and status such as number of reads, comments or trackbacks (Duffy et al., 2006). The date as in Figure 6 can be seen at the top of the page.

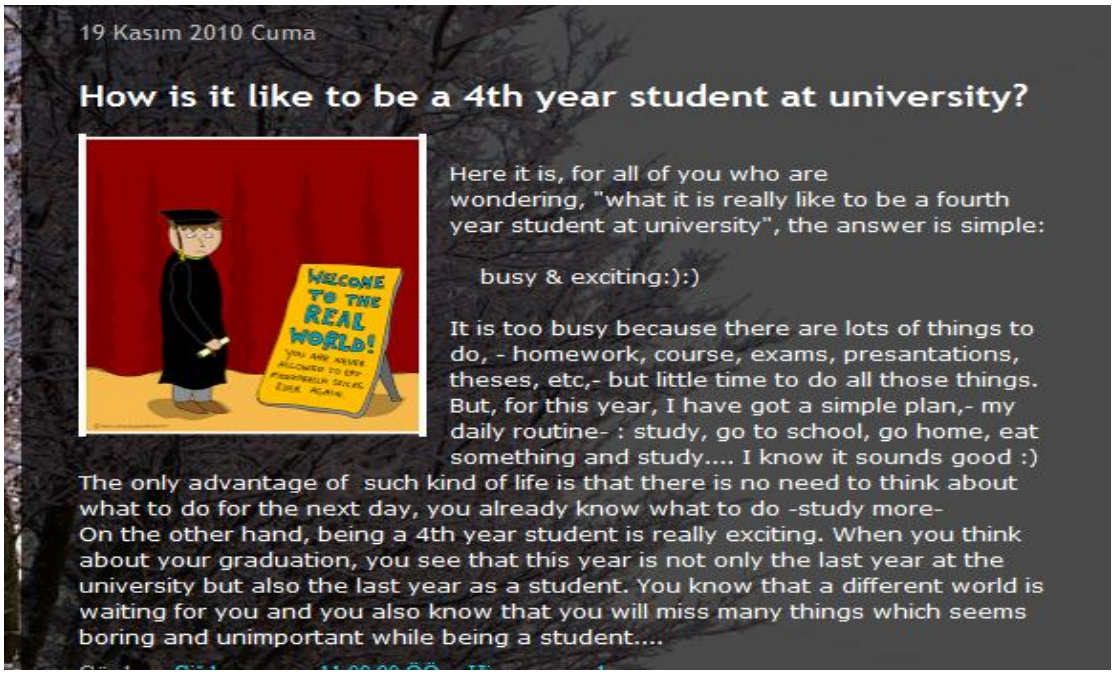


Figure 6. A Screenshot from a Narrative Student Blog. Reprinted with permission.

Blogs are very valuable tools for education because they provide real platforms for students to share their writing. Students have to plan carefully before they write to the real audience. As you can publish any piece of writing very quickly, students may have the feeling that they have produced something and become satisfied. In addition, Solomon and Schrum (2010) say that because the nature of the blogging changes the process of writing (brainstorming, prewriting, organizing, writing, editing and revising), students who engage in blogging develop writing which they couldn't achieve easily before. Because of its publishing writing feature and sharing with the readers instantly, educators mostly use it for teaching writing.

Sykes et al. (2008) state that Wikis and Blogs are spaces in which students have the potential to move from the conventional state of being a knowledge consumer to that of knowledge producer, and, in so doing, to shift also from mere participation in an educational community to contributive and co-constitutive roles in that community.

Stanley, G. (2005) on the other hand, lists some reasons for using blogs in teaching English:

- To provide extra reading practice for students
- As online student learner journals that can be read by their peers
- To guide students to online resources appropriate for their level
- To increase the sense of community in a class
- To encourage shy students to participate
- To stimulate out-of-class discussion
- To encourage a process-writing approach
- As an online portfolio of student written work
- To help build a closer relationship between students in large classes.

In Figure 7 an online portfolio of a preservice teacher who participated in this study is illustrated. S/he provided the links to her Glogster, Voki, Wordle and Wiki on her blog.

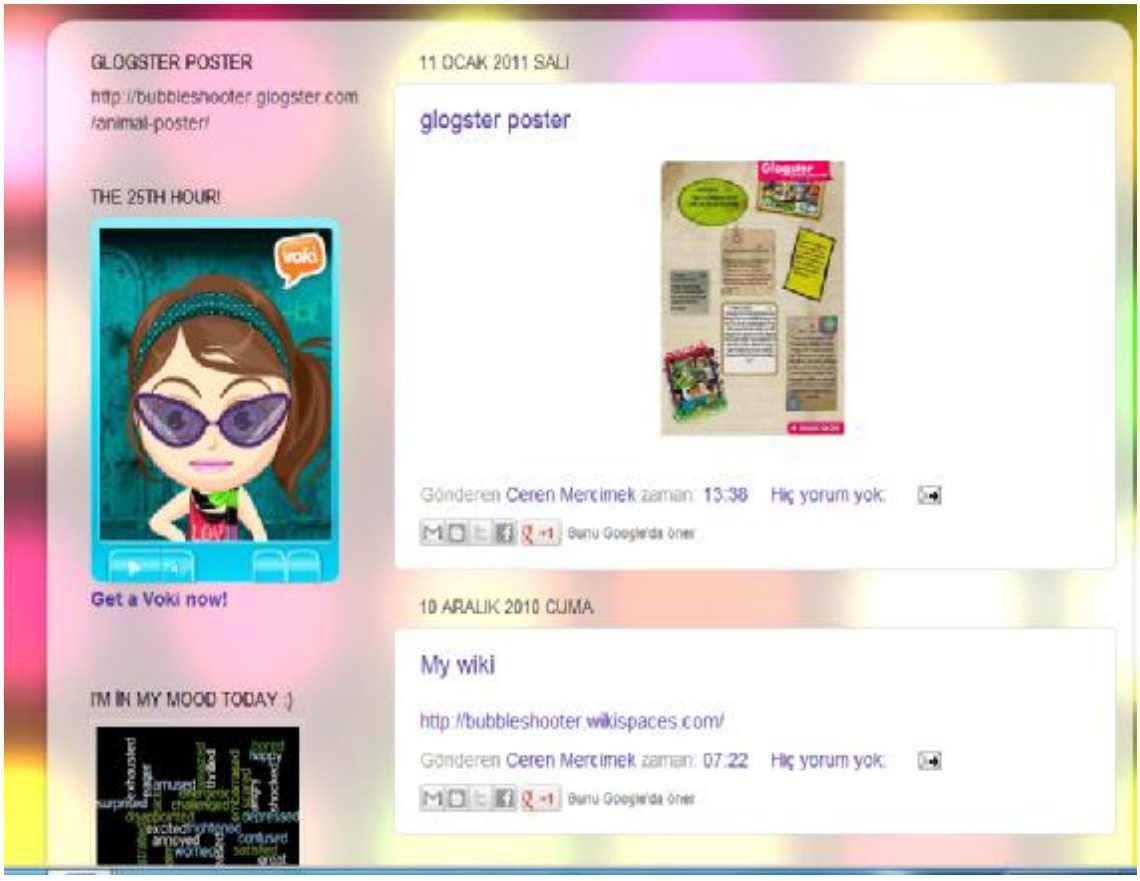


Figure 7. A Screenshot from a Student blog. Reprinted with permission.

Stanley, G (2005) also gives some ideas for activities:

- Mystery guest: Invite another teacher or someone from another school or country as a mystery guest to your blog. Ask the students to engage him or her in dialogue and guess his/her identity.
- Project work: A blog is an ideal space for developing a project, especially if the project is a shared one between several classes or even classes in different countries.
- International link-ups: Contact another educational establishment to see if they are interested in a joint blogging project. Students can write about their lives, culture, interests, etc, and be encouraged to read about the other class and respond by writing comments.

If we were to give a detailed example about using blogs for teaching writing, we can mention about the teacher who uses a blog to teach contrastive paragraph. He first introduces the contrastive structure and then he makes a brief introduction to the topic 'High Schools around the World'. Then the teacher creates a blog and wants the students to enter the blog in their own time and write about their high school. Students are given some questions by the teacher on the blog and these questions help them learn new vocabulary. Then they check the blog again to see the comments to their post and learn about the other students' experiences. After this, students are asked to pair themselves with someone who had an experience in high school that was different from their own. In class, students work together to build a contrast paragraph using the necessary conventions of a contrastive paragraph. Then they hand in their contrast paragraph (Galien, 2010).

2.4.1.3. Xtranormal in Teaching English

Xtranormal is an easy to use 'drag and drop 3D animation' program. The 'Text-To-Movie' function lets the users set the scene, choose characters, type in a dialogue, add specific actions which are inherent in the system and turn it into a movie. Solomon and Schrum (2010) explain that Xtranormal provides a simple way to create movies. You type some words, and the site turns it into a movie online and you can easily watch it on your desktop.

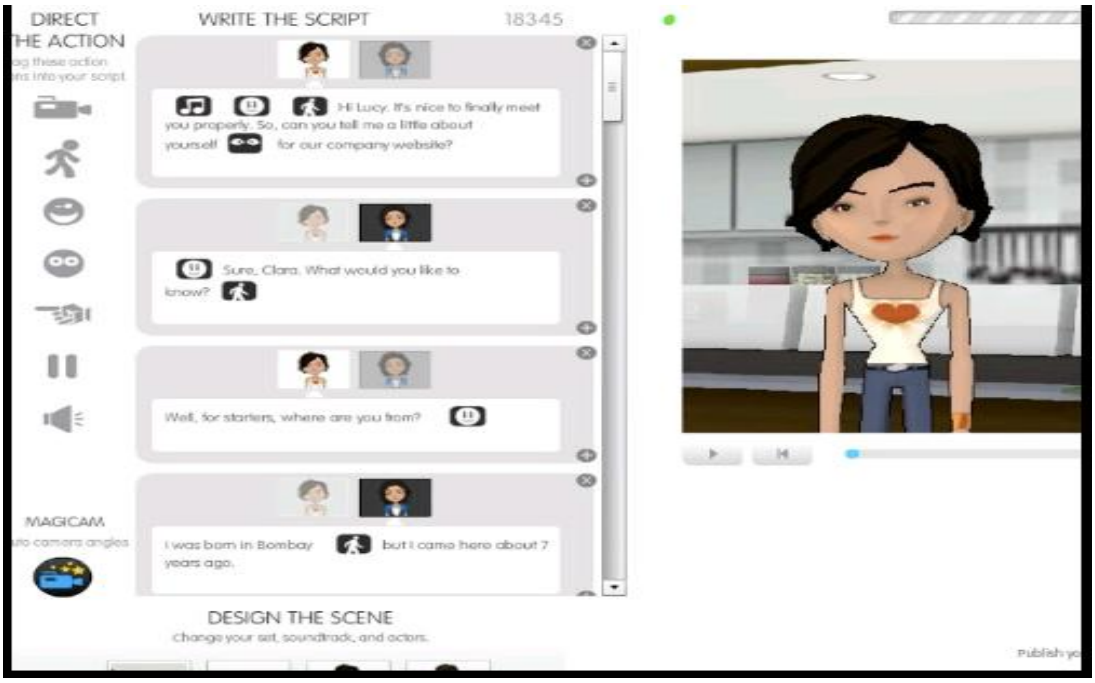


Figure 8. A Screenshot from an Xtranormal. Retrieved May 5, 2012 from www.xtranormal.com . Reprinted with permission.

Students can create a story and pick the set, actor, sounds and animation, and it appears as a movie. Creating a movie and saving it as work in progress is free. Students can view the teacher's Xtranormal video and work on making one themselves. However, to publish an Xtranormal video, whether your own or your student's work, on a website to show it to others, costs an amount of money. A screenshot from a Xtranormal video can be seen in Figure 9.

Figure 9. A screenshot from an Xtranormal video. Retrieved June 8th, 2012, from: www.xtranormal.com. Reprinted with permission.

To produce a one – two minutes long film script based on a dialogue between two people on the topic of 'Health', using appropriately complex vocabulary and grammatical constructions, which would then be turned into a short feature film using Xtranormal ("Xtranormal in the classroom").

2.4.1.4. Glogster in Teaching English

A glog is an interactive visual platform in which users create a 'poster or web page' containing multimedia elements including: text, audio, video, images, graphics, drawings, and data ("Glogster in education"). A Glog is created using a very easy to understand, drag and drop interface that is relevant, enjoyable, and scalable for students of all ages and learning styles.

Roman Smola, Martin Santarcl and Patrik Prepsl founded Glogster and launched in 2007 as a resource for digital expression and a better alternative to offline boards, posters or complicated web tools ("Glogster").

The 'Edu Zone Glogster' provides tools for students to create interactive online posters using photos, images, graphics, videos and sound. They can add links to other websites and embed their work on web pages, wiki pages, or a blog.

In short, it is a vibrant, multi-sensory learning experience which integrates learner's knowledge and skills into traditionally text-oriented subjects and motivates learner's desire to explore topics in which they may previously have been less interested.

Figure 10. A Screenshot from the Glogster edu webpage. Retrieved January 5th, 2012 from http://dorenebates.edu.glogster.com/. Reprinted with permission.

Glogster allows teachers to create thoughtful and creative assignments. They can assign students to research about a country and make a traveling brochure. Students can upload youtube videos of people speaking in their native tongue, upload popular/traditional music of the country, and provide facts, travel information and popular destinations on one Glogster.

Thanks to Glogster, all four skills (listening, reading, writing and speaking) can be put into good use in one piece of work. A student may write a descriptive piece (writing) and record his own voice (speaking) so other students can read (reading) and listen to him and his chosen videos ("Using Glogster as an Assessment Tool").

This kind of activities can be done by using many tools, but using Glogster enables students to do the work, allows them to create their unique piece of work and can be used for peer assesment.

Glogs (the multimedia posters created) can be embedded into class blogs and students can leave some comments for the Glogs. Students can be given directions on leaving comments. For example, they can write about two parts that the student did well and another part s/he could improve. By this way Glogs may be used for educational purposes.

2.4.1.5. Podcasts in Teaching English

A podcast is a series of digital media files (either audio or video) that are released episodically and often downloaded through web syndication. Shamburg (2009) mentions that audio and video files (often thought as 'episodes') are created and disseminated on a regular basis by a podcaster; a subscriber can easily receive new episodes and episode information, and download, listen, and transfer the episodes to a variety of portable players.

Podcasting is a cheap way to create and share media that correlates to authentic activities outside the school. Students who create podcasts become active participants in culture and society. Shamburg (2009) states that students can create audio dramas, news shows, or audio tours. By using various free software like Podomatic ("Podomatic"), Audiacity ("Audacity.) students can create some audio files.

One of the reasons why teachers should use podcasts is to enable students to be able to speak the language as this is possible when they listen to it as much as possible. Their accent improves and they feel confident to try it, too. To achieve this, teachers may make use of creating podcasts either by recording their own voice, or downloading a sound file from somewhere to listen on their Mp3 players and Ipods. Teachers can have vocabulary for tests, grammar explanations recorded as podcasts for auditory learners.

At the beginning of the year podcasts can be used to break the ice between students. Students might create short podcasts which include some information about who they are, what they like doing, where they are from and anything they want the others to hear or as shown in Figure 11, a student might speak about a topic the teacher assigns him/her ("Tools to get pupils talking")

Figure 11. A Screenshot from a Podcast Prepared by a Participant. Reprinted with permission.

Solomon and Schrum (2010) express that students have been producing audio programs for a long time, but podcasts are easier because they are recorded digitally on a computer. Another important difference might be that podcasts are available to worldwide audience.

Harris and Park (2008, as cited in Solomon and Schrum,2010) suggest two types of podcasts: 'Teaching driven' which allows teachers to provide a repeat or a summary of a lecture, 'Technology driven' which are used by teachers to assist with instruction about podcasts and not examine podcasts' effectiveness in any of these uses.

There is a great variety of podcasts available for different levels of language learners starting from stories, musical instruments, and dramatic events for very young learners to authentic podcasts for the advanced language learners. What is to be done with such variety of podcasts is the language teachers' job. They should choose an activity according to the needs of the class and the requirements of the curriculum they are following.

2.4.1.6. Storybird in Teaching English

Storybird is a collaborative storytelling tool. Students use collections of art to be inspired to write stories. Once the art is chosen, students are able to build their story by dragging and dropping pictures and creating a story to match. It's great for teachers because they can easily create student accounts and assignments for students. It's also simple to collaborate with others whether it's another student in class or someone from another country. Storybird is an extremely engaging site that allows students to focus more on the content of their writing rather than drawing pictures ("Storybird").

Figure 12. A Screenshot from a Story Created by Using Storybird. Retrieved February 6, 2012 from: www.storybird.com . Reprinted with permission.

The final product can be printed, watched on screen, or shared in an online library with the world. You also have the option to keep it private on the network.

Storybird may be used for fostering writing. It can be used for setting writing assignments. For example, a teacher might set homework by using the prompt 'Write a story about … by using the themes and art on Storybird.com'. It can also be used as a way to collaborate between parent and child. Students can create a story with their parents then 'A Book Share day' can be held where parents come in and read the story with their child to the rest of the class ("Storybird Application in Class").

Teachers may also find another class from another city or country to work with. Students can be paired up from the two classes and they can write a story together. In this process each child will bring his/her own style to the story while working together. Each class can work on the stories when they have an opportunity. When students finish their stories, students from the two classes may take turns reading their stories through Skype or other communication tools available ('Storybird application in class').

Storybird can also just be used to have students write on their own. The fact that the work can stay unpublished until it is finished, allows it to be worked on over several class periods. Students can work on their stories during their lesson in a computer lab or at home. Students can prepare some stories like the one illustrated in Figure 13.

Figure 13. A Screenshot from a Storybird story Created by a Participant. Reprinted with permission.

By using Storybird all the language that had been learned in the previous lessons can be used by trying to use more complex structures and a greater variety of vocabulary, thus consolidating existing knowledge. In addition, engaging in activities which students see as having a concrete and practical outcome, such as writing electronic books, allows the students to be creators of something unique, of which they have ownership. It also facilitates the transition from teacher-centered, class-based learning to one in which the pupil begins to acquire individual responsibility. Storybird can help students bring abstract thoughts in their mind to life and adds a dynamic, digital component to traditional storyboards.

A concrete visual representation of their abstract thoughts can now be transformed into wonderful writing. Students can use the finished Storybird to write a paper that expands their abstract thoughts into an essay (“Storybird for writing”).

Activities to be enhanced by using Storybirdmight be listed as follows (“Storybird Activities”).

1. Finished stories can be:

- Viewed online by classmates, friends, and family
- Embedded into websites, blogs, wikis, glogs, etc.
- Downloaded and saved as PDF files
- Printed from your computer
- Purchased as softcover and hardcover books

2. Teachers can use Storybird:
    - To introduce themselves or the class rules on the first day of school
    - To create lessons and tutorials about any topic
    - As an easy strategy for keeping a portfolio of student writing
    - To promote the writing process
    - To help students better understand the parts of a story
    - To encourage higher-order thinking skills
    - To promote creativity
    - To collaborate with students, colleagues, and other classrooms
3. Students can use Storybird:
    - To write an ‘About Me’ story the first week of school
    - As an alternative strategy for submitting research reports, book reports, and essays
    - For journal reflections
    - To create gifts for loved ones
    - To collaborate with others inside and outside of the classroom

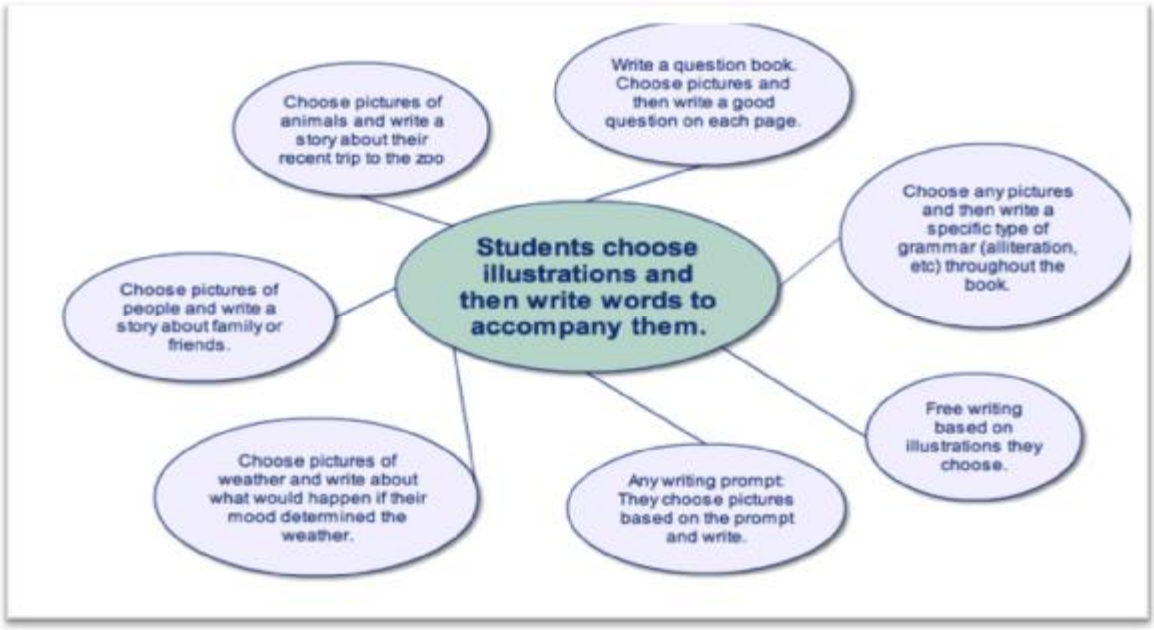


Figure 14. Collaborative Uses of Storybird in Teaching Writing. Adapted from : "Storybird for Writing".

2.4.1.7. Voki in Teaching English

Voki allows you to create personalized speaking avatars and use them on your blog, on your profile, and in your e-mail messages. An example of a Voki avatar is depicted in Figure 15.

Figure 15. A Screenshot from a Voki. Retrieved May 3rd, 2013, from www.voki.com . Reprinted with permission.

Voki allows teachers and students to create speaking avatars in a fun, stimulating and engaging way. It allows students to express themselves on the Internet in safety and confidently, as their real identities are hidden behind the avatar. With the help of the Voki, the shy become outspoken and the reticent assured ("Voki for the Classroom"). It can be said that Voki is a very valuable tool for teaching speaking in the language learning classroom.

Teachers can use Voki to introduce a course or a blog/wiki in a fun and engaging way to students. They can also add hints and tips about coursework or assignments on their online site by talking to their students via a Voki. Voki can also be used as an assessment task like review, give peer feedback, express an opinion or idea ("Voki ideas").

It can also be used in writing activities to add a speaking and listening dimension. For example if students are writing about their likes and dislikes, they can record or key the sentences into Voki and hear them spoken. They can watch and listen to each other's avatars.

In general Voki can add a more 'human' element to the online class website or blog. It is especially useful for teachers who may not be good at video taping or vodcasting ("Voki Tips").

For teaching vocabulary, Voki can be used by assigning students to read a book and write a review about it. After checking the text, the text can be keyed in Voki and the avatar will read the text the student had written. As an alternative, the student might record her/his voice and use it in his/her Voki to improve pronunciation. The teacher can embed the Vokis in the class blog so that other students or the teacher can give some constructive feedback.

In additon to using Voki as giving feedback about their work, a teacher might use it to teach about public speaking. For example, Rachel Marco is an English teacher ("Voki lesson plans") who uses the Voki to teach students to identify and pay attention to nonverbal communication and the impact it has on public speaking. For this she teaches the qualities of different presentation types (Manuscript, Memory, Impromptu, Extemporaneous). She focuses on the importance of verbal delivery. Then she prepares a Voki in which he uses a robot as an avatar. She types in a speech and asks students questions after watching the Voki like: What is missing from this speech? She might get answers like 'Movement, Body, Vocal Inflection'. Then she says "we aren't robots, so don't talk like one!'.

Another lesson Marco ("Voki lesson plans") prepared by using Voki is for teaching 'Writing Introductions and Conclusions' in an essay. In fact she focuses on the effectiveness of introductions and conclusions. For her aim she wants her students to create a Voki and read a list of items out loud (pen, paper, notebook, school of communication, dorm room, dining hall, roommate, speeches, outlines, professor, textbook), then she asks them to write down what they remember from the list of terms she read out loud to them. She wants them to tell her all the terms in the correct order and write it on the board. Then she writes the correct terms and order on the board next to their list and compare. She asks them which terms they remember. She expects them to remember the first and the last ones. She explains that this as the primacy/recency effect and adds that strong introductions are key to a successful speech.

Another example is about the use of Voki in teaching reading. It can be used as a tool to prove that students read and understand a given text at any level. For example, a teacher assigns the different chapters of a book to different students and wants them to make research about their topic and then come up with a paragraph of 250 words. Then the teacher asks students to type in their paragraph in Voki and have the avatar read it. If the teacher publishes these Vokis on the class blog, it will be beneficial for students to watch and listen to the other subjects about the lesson. In the traditional sense when students make a presentation in class, it is easily forgotten or not listened to in the classroom. However, if there are Vokis in the class blog, it will stay there and students who would like to listen or watch again, will be able to do it easily on the Internet. Otherwise, it would be more difficult ("Voki Activities"). Another teacher uses Voki to overcome the shyness and increase the motivation and oral participation of boys in a school.

Generally speaking, Voki can be accessed both at home and at school, it necessitates computer-student interaction, which can be a motivating factor, it enables pupils to be creators of something unique, of which they have ownership, it facilitates the transtion from teacher –centered, class based learning to one in which the pupil begins to acquire individual responsibility, it makes it possible for the quieter pupils to make their presence felt and be heard and it allows the pupils to replay and hide behind a mask (an avatar), creating a distancing effect which appeals to more reluctant speaker.

With these ideas in mind, a teacher creates an assignment, a homework task of writing between 80 and 100 words in which they had to describe their city, town, or village so as to base their Voki speaking task on it. The teacher checks the writing so

that students can speak with confidence Then the students watch each other's Voki and write comments ("Using Blogs and Voki").

A teacher gives some tips about using Vokis in the classroom. Students can create avatars that are similar in looks or personalities and record a message that tells about them. Students can create an avatar that resembles a character from a story, add a setting and write a text to make it speak. The speech could be from the story or a creative point of view from the character on an event ("Voki tips").

2.4.1.8. VoiceThread in Teaching English

VoiceThread is a highly engaging, collaborative tool throughout which students can comment on different slides that have pictures, videos, or documents on them. It's very easy to create identities for each student so that they can leave their own comments on different slides. The best part about it is that only a link or the embed code is needed to easily share with others and if the VoiceThread is public, anyone can add comments ("VoiceThread").

In other words, a VoiceThread is a multimedia slide show that holds images, documents, and videos and allows people to navigate slides and leave comments in 5 ways - using voice through a Facebook Fan Page (with a mic or telephone), text, audio file, or video (via a webcam). A VoiceThread can be shared with friends, students, and colleagues and they can record their comments, too. Users can doodle while commenting, use multiple identities, and pick which comments are shown through moderation "Voicethread for Education".

Solomon and Schrum (2010) state that VoiceThread is a useful educational tool because it allows student (and teacher) work to be transformed into a conversation with an authentic global audience. Feedback can be typed, recorded by voice or video, uploaded as audio or even recorded by phone. Commenters can even 'draw' on the slides in order to illustrate a point. As students can speak about their reflections, teachers get more in-depth thoughts from most students. An example is illustrated in Figure 16.

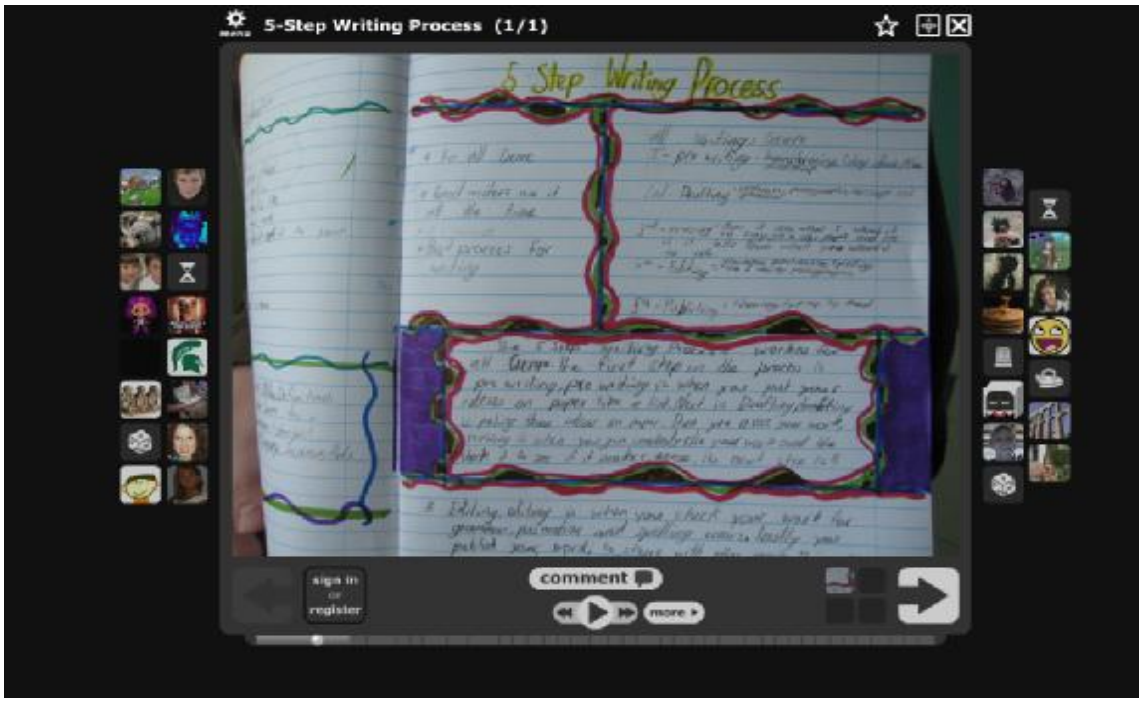


Figure 16. A Screenshot from a VoiceThread. Retrieved March 15, 2013 from www.voicethread.com. Reprinted with permission.

A teacher might use VoiceThread to advance writing skills with an authentic purpose, for oral reading fluency, and involve families with a school project. Students may learn the story behind five or six family photos by interviewing family members, and then they may prepare a narration. Students scan the photos and upload them on VoiceThread, and record their narration (Solomon and Schrum 2010).

Another activity might be to take pictures of their hometowns and create digital stories by using VoiceThread. A teacher can create a VoiceThread to share information about where students live ("Voicethread in the classroom").

A sample VoiceThread activity about music genres by a Canadian English teacher is as follows: he prepares the slides for different music genres. In his class his students look at the slides, watch YouTube videos from the various genres depicted in the VoiceThread, read about the genres and artists on wikipedia, and then make comments on the VoiceThread ("Voicethread Activity Sample").

An English teacher from Brazil plans a lesson for his advanced students as part of a bigger intercultural project - sister classes, which has a Teachers' blog and a Student Showcase blog. His students chose which they believed to be the five most important cities in Brazil, then chose pictures that best represented them, and recorded

their descriptions, in order to make an introduction of Brazil ("Voicethread for Education").

2.4.1.9. Wiki in Teaching English

Wikis are web pages that students can use to write, edit, and add elements, such as images and video, to create collaborative projects. When the assignments are tailored well, the projects involve a group of students in researching, synthesizing, and analyzing information, writing about what they've learned, and evaluating and editing one another's work. The end result is a product that all members of the group believe is their best work (Solomon & Schrum, 2010).

Wikipedia is a site that has been described as 'colloborative writing that leverages collective intelligence for knowledge production in the public domain' (Lankhear & Knobel, 2007 as cited in Skyes, 2008). It is generally defined as a collaborative encyclopedia that includes an enormous amount of information which is constantly updated. Contributors and evaluators monitor and edit the entries, which serves as a way to authenticate the contents so that people can trust the information. The most popular wikis in education are PB (formerly Pbwiki) and Wikispaces. In short, it is the place for collaborative content building and dissemination of information. An illustration from a participant's wiki page can be seen in Figure 17.

Figure 17. A Screenshot from a Participant's Wiki Page. Retrieved March 12, 2011, from www.wikispaces.com. Reprinted with permission.

Wikis can be used in many ways for fostering teaching in the classroom. For example, teachers can create in online texts for their classrooms; they can have their students use a wiki to publish information about a topic they are investigating. Teachers can also create a wiki for their school, or create digital portfolios for students and teachers. There's also an opportunity to create collaboration opportunities between classes across the school and across the world. An example wiki where a preservice teacher puts some extensive reading materials can be seen in Figure 18.

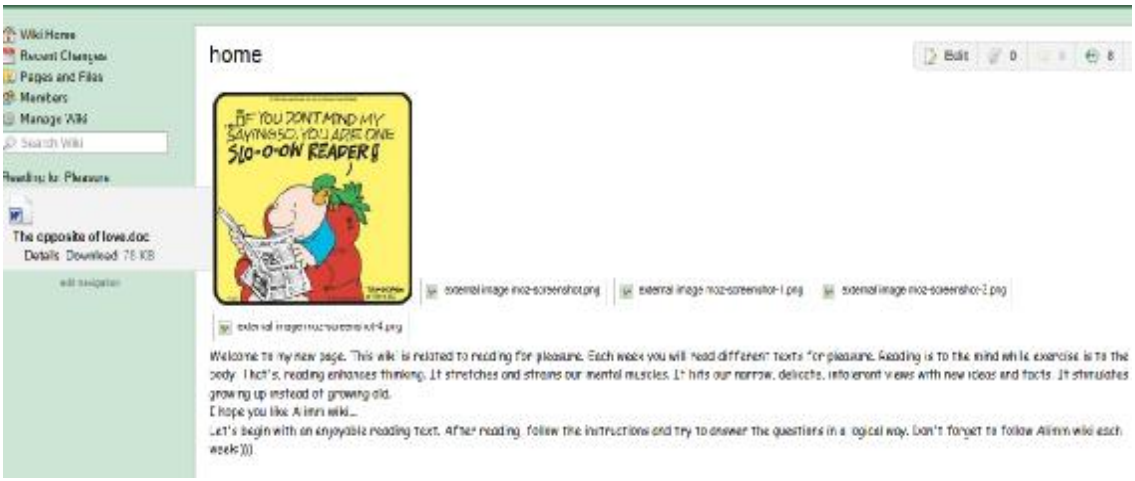


Figure 18. A Screenshot from a Participant's Wiki Page. Retrieved May 5, 2011, from www.wikispaces.com. Reprinted with permission.

For example Soloman & Schrum suggest (2010) a team-writing assignment in which students research a topic in the curriculum, analyze what they find, enter their syntheses into the wiki, and consult with one another to make sure the topic is covered throughly and accurately. They can use peer editing to make sure the writing is clear and concise.

Everyone in a group contributing a wiki can add, delete or change the contents and these changes are visible instantly. Therefore, students feel themselves more responsible about their works on wiki. In a group work a teacher can easily track a student's contribution to the project. According to Lake (2009, cited in Solomon and Schrum, 2010) students need to experience this in order to become prepared for work that can take place virtually, perhaps over long distances, often within shifting work groups.

2.4.1.10. Wallwisher (Padlet) in Teaching English

Wallwisher is a Web 2.0 free online tool where anyone can build a 'wall'. It allows users to write, collaborate and share content on an empty canvas. The idea is deliberately simple in order to allow many uses for the service. For example, you may create noticeboards, scrapbooks, playlists, charts and polls, use it to brainstorm or to manage events ("Wallwisher in Education").

Everybody else can then go on the Internet and stick post-it notes electronically onto the wall, (and include linked Pictures, You Tube videos, Power Points, PDF documents, Excel Spreadsheets, or web page links). It was originally designed for birthday, anniversary or get well soon wishes. A whole group of people could add their messages for someone; and that person could then read them on the web.

If the wall is set to 'public', then online visitors can add a comment to the wall by double clicking on it and typing text in. Comments are limited to 160 characters. An illustration is given in Figure 19 below.

Figure 19. A Screenshot from a Padlet Page. Retrieved May 4, 2012 from http://wallwisher.com/embed/vocabulary. Reprinted with permission.

The name of this Web 2.0 tool changed later with the development of technology and it is called as Padlet, which is explained as tablets becoming more prevalent and they composed 'Padlet' out of the words **pa**per+woo**d**+tab**let.** They add

that these tools have been all used for the purpose of note-taking throughout the years (“Padlet”).

Teachers might use Padlet to get students comments of a book, article, short story they have read. It can also be a further study after a reading, writing lesson. For example a teacher asks his students to search for other examples of cultural change in the 1920s online. When they find examples, they put them onto a Wallwisher wall that she projects onto a wall in her classroom (“Wallwisher in the classroom”).

In addition, Tom Barret (“Wallwisher in the classroom”) gives some more ideas to use Wallwisher, they are:

- Giving questions about a topic and getting them on the Wallwisher
- Gathering feedback from students
- Composing book reviews
- Giving out assignments
- Collecting ideas for exploration
- Independent writing (teacher can start a wall with the ‘things we like’ Then teacher asks students to develop sentence writing on this single theme).
- Student reflections on learning

Teachers register for an account and they create a board. Then they share the link with their students. This allows the students to access the teacher’s board and they start collaborating. Teachers can also adjust the settings on their board so that each post requires his/her approval. In addition, it should be remembered that a gmail account is needed to sign in (“Wallwisher Use”).

2.4.1.11. Wordle in Teaching English

It is a tool for generating ‘word clouds’ from text that you provide. A piece of text or a list of words is typed on the space provided for a Wordle image. One can choose some different kinds of fonts and colors and then the text becomes a Wordle, a word cloud in which the most frequently used words are displayed in a larger font. They can be played around with the font styles, colours and layout until one has a finished

Wordle. They can be printed out or saved to the Wordle gallery to share (Solomon and Schrum, 2010).

Teachers can use Wordle as starter activites. As students enter the room, the teacher might display her Wordle on her projector. Students then look at it and guess the topic they are going to be learning. It can also be used as a vocabulary classfying exercise. Students can create their own Wordles. Students type sentences on various topics in a Word document and then copy paste them into Wordle. An example Wordle image can be seen in Figure 20.

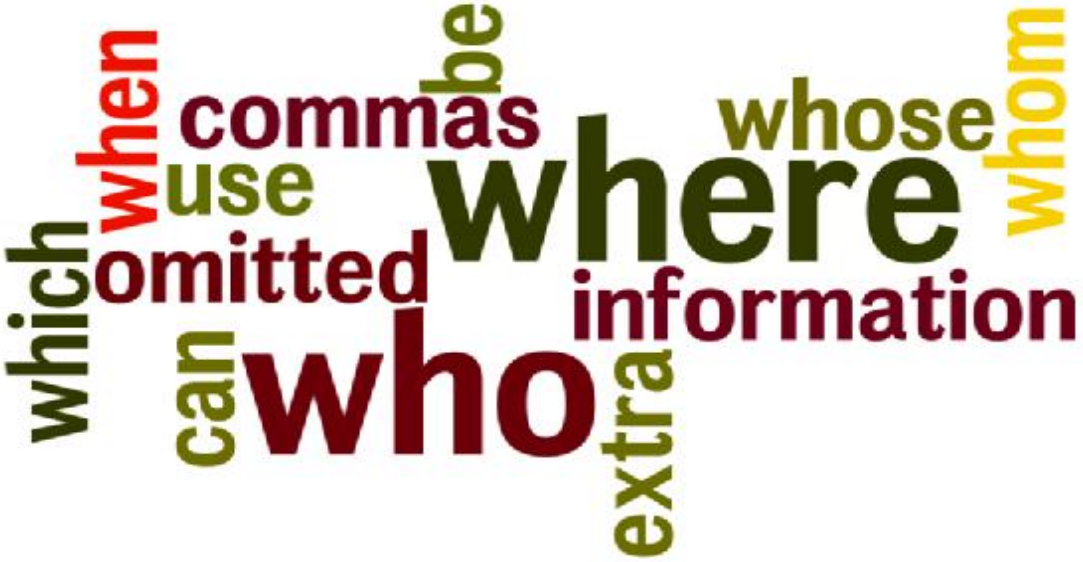


Figure 20. A Sample Wordle Use in Teaching Grammar. Retrieved February 12, 2013, from www.wordle.net. Reprinted with permission.

Wordle can also be used for activities such as topic introduction, vocabulary development, word association, practice writing, word matching, pre-reading, brainstorming, defining main ideas, assessment and reflection. For example, students might be given a Wordle full of vocabulary about a theme (history, travel, etc.) and asked to write a story by using some of the words given in Wordle. The stories might be posted on a blog and students may read each other's stories. Another example might be to use Wordle in a pre-reading activity by using key words created in a word cloud and to have predictions of the students about the content before reading the actual text. For reading a teacher might elicit the main idea by creating a word cloud out of an article in the target language and ask students to discover and highlight the main idea in the article.

If we were to give an example we can talk about a teacher who chooses two online newspaper articles about the topic she is teaching, The articles are about ‘the environment’. Then she copies and pastes the articles into Wordle and creates two word clouds. Then she creates two word documents with the full articles and makes enough copies. She also prints both word clouds on one piece of A4 paper and makes enough copies. Students look at the word clouds and try to guess the gist of the original articles. Students explain to each other what they think their article is about while the teacher displays each word cloud in turn on the interactive whiteboard, highlighting words one at a time and extracting relevant/useful vocabulary. She then hands out copies of the original articles in full to her students and discusses the vocabulary further. She in a way engages her students in text analysis (“Wordle Activity Sample”).

As regards to using Wordle in teaching about the use of English, the rules about a grammatical form might be written as a text and copied into Wordle. The rule might be elicited from the students with the help of the words from the Wordle the teacher prepares.

2.4.2. E-learning Platforms

Martin-Bias and Fernandez (2009) state that besides the fact that the Internet is a vast source of information; there are some specific web-based applications which are often called e-learning platforms. Various expressions are used to describe educational computer applications, such as e-learning systems, Learning Management Systems (LMS), Course Management Systems (CMS) and Virtual Learning Environment (VLE) (Costa et al., 2012). E-learning platforms allow teachers to provide the students with material of different sorts, as well as to communicate with them. They also allow teachers to follow the evolution of the learning process and to know the performance of each student in specific tasks. Moodle is one of these e-learning platforms which was utilized in this study.

2.4.3. Course Delivery Tool: MOODLE

Moodle is a free online learning system designed by Martin Dougiamas. The name ‘Moodle’ is acronym for the ‘Modular Object-Oriented Dynamic Learning Environment’ (“Moodle”). This free web application is used by educators to create

effective online learning sites with dynamic content. That is, teachers can decide about the format, the contents (they are called the modules in Moodle) to be used in their online course. It gives the opportunity to design a virtual class where teachers and students come together and continue with their learning outside school. Indeed, it is used as a distance learning tool or as a support of a face to face classroom. The most important advantage of using Moodle is letting students study any time, any where, at any pace, which brings out great learner autonomy as well. As it is the teacher who decides everything about the lesson format on Moodle, it also gives the teacher an opportunity to keep the track of his/her students outside the classroom. It facilitates student-teacher and student-student interactions and also provides a space for students to study collaboratively. Rice (2006) mentions that Moodle is designed to support 'Social Constructionist Pedagogy which is an interactive learning style'. He adds that the social constructionist philosopy believes that people learn best when they interact with the learning material, construct new material for others, and interact with other students about the material.

A Moodle course is composed of resources and activities. A teacher might design her/his course by choosing from the resources and activities according to the needs of the learners and the nature of the course that is being taught. A teacher might employ two kinds of course materials: static and interactive. The static course materials might be links to web pages, or some texts the teacher had put. This kind of materials are under the 'Resources' menu whereas the interactive course materials are gathered under 'Activities' menu. The activities that can be used are: Assignment, Survey, Choice, Chat, Forum, Glossary, Lesson, Workshop, Wiki, Scorm, Quiz and Database. The activities like 'Forum, Chat' give opportunities for student-teacher and student-student interaction.

As Moodle is a Learning Management System, it also helps the teacher keep the track of the students and set his/her homework with due dates. When the teacher clicks the menu 'Participants', s/he will immediately see who is there, who had accessed the site with exact time. A teacher can even follow what activities, resources the student participated or only looked at from the archives of 'Moodle'. With the help of this quality a teacher might organize an online 'support' class or 'motivation' or 'discussion' activity throughout the 'Chat' module at a certain time. It is up to the teachers' creativity and the students' needs to use interactive facilities of Moodle.

When it comes to privacy of the online class, Moodle gives the authority to the teacher or the Admin (the person in charge of administration of Moodle in a school) to let only the students of a specific class to enter the course and also some guests who would like to have a look at their online course. Likewise, there is a chance for the teacher to close the lesson to students to make some changes or for some other reasons.

In summary, it can be said that Moodle is a useful online tool to support a face to face language classroom. A teacher might have a colorful, interactive online class for her/his language class which helps the learners be more motivated and active in their learning. Because of the stated qualities above, the researcher conducted her study by using Moodle as the learning platform for the course. The Figure below shows the contents of the 'Online Educational Technology Course'. The figure shows the page which preservice teachers see when they log in. The interface used by Moodle enables preservice teachers to follow the course easily as can be seen in Figure 21.

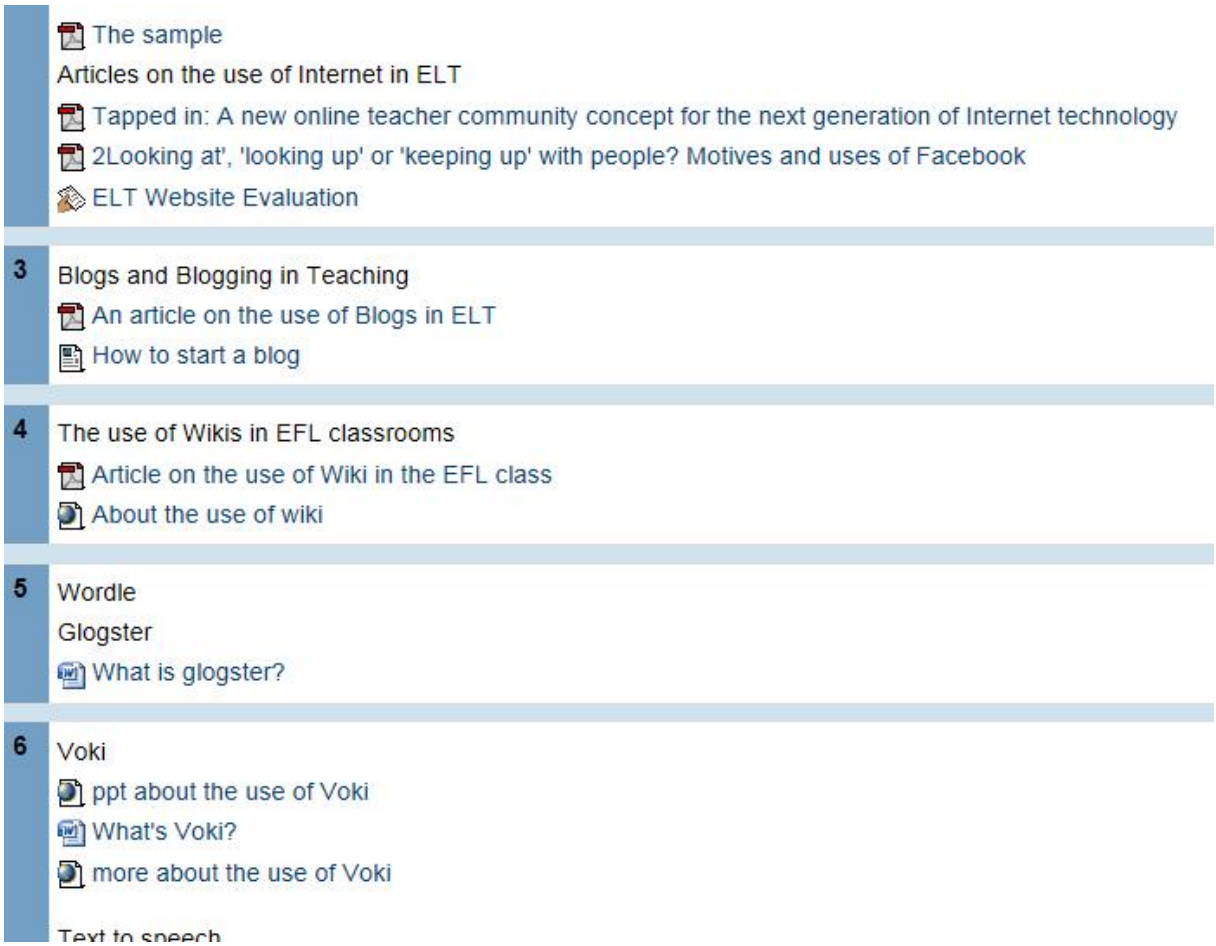


Figure 21. A Screenshot from the Online Educational Technology Course –Home page, Retrieved February 22, 2012, from: moodle.emsalates.com.

2.5. Benefits of ICT in Foreign Language Teaching

According to the report prepared for CILT, Davies et al. (2005) list the general benefits of using ICT in teaching foreign languages as:

- A wider range of learning opportunities: interaction, collaboration and communication.
- Possibilities of differentiation, according to pupils' individual needs and learning styles.
- more opportunities for practicing language skills, especially listening and speaking
- Access to authentic resources on and off line.
- Contact with schools in other countries by e-mail or video conferencing.

A similar list is also prepared by Butler-Pascoe and Wiburg (2003) which denotes the qualities of a successful technology-enhanced language learning environment:

- Provides interaction, communication activities and real audiences
- Supplies comprehensible input, English language learners need to be exposed to a sufficient amount of language that is understandable to them
- Supports the development of cognitive abilities
- Utilizes task based and problem-solving activities
- Is student centered and and promotes student autonomy
- Facilitates focused development of English language skills
- Uses multiple modalities to support various learning styles and strategies
- Supports collaborative learning
- Meets affective needs of students
- Fosters understanding and appreciation of the target and native cultures
- Provides appropriate feedback and assessment

Because there are lots of facilities on the internet and as these Web 2.0 tools my enhance our teaching when necessary, then preservice teachers should meet with these

technological facilities as equipments and Web.2 0 tools when they are being trained at their schools. As explained before, teacher training institutions offer some courses related to technology generally. However, there should be consistent and developing programs which match the needs of the learners and assist the teaching skills of the teachers. With this idea in mind, it will be benefical to have look at the technology integration models for teacher education programs first.

2.6. Technology Integration Models for Teacher Education Programs

Gillingham and Topper (n.d) described four different technology integration models:

1) Single course approach: Course can be taught by an expert faculty who have both knowledge in technology use in the classroom and the subject matter. The researchers argue that a single course as a separate entity in the teacher education program gives students only a one time exposure to technology, and its course content can be easily forgotten.
2) Technology infusion approach: Aspects of technology are placed within each course of a teacher preparation program. This lets a long term exposure to technology and technology modeling within subject matter courses.
3) Individual student performance approach: Several times during their program students choose their technology enhanced projects and performances from a number of categories. This approach involves self-directed learning and is followed by an assessment of technology proficiency.
4) Case-based approach: This approach is the inclusion of a series of cases in which teachers use technology as part of a broad case-based technology preparation program. Prospective teachers study and reflect on the efforts of teachers who have incorporated technology into their classroom practice.

Wildner (1999) offers a single course model (2-3 credit hours) in which he first introduces the students to the wide variey of technology applications in foreign language instruction. In the second phase, students familiarize themselves with hardware and software components and access different technology resources. In the

third phase, students learn about current research in the era of technology use in foreign language instruction and develop critical skills to evaluate technologies. In phase four, based on theoretical approaches in foreign language teaching, students design technology-enhanced lesson plans and learning activities for different purposes using a variety of different technologies. In phase five, students develop their projects using different technologies. In phase six, they present their modules in a simulated classroom situation.

Zhao (2003) thinks that adding a new course is problematic because one course is not sufficient to help teachers teach the level of knowledge needed for creative uses and technology should be considered part of teacher's pedagogical knowledge. Teaching technology seperately could easily result in a focus on technological skills instead of technological uses. Zhao also thinks that integrating technology into the existing courses enables teacher educators to demonstrate how technology can be used in authentic teaching situations, and provides opportunities for preservice teachers to explore and use technology throughout their collegiate years.

Kainth and Kaur (2010) emphasize four different approaches for integrating technology in teacher education:

- ICT skills development approach: Here importance is given to providing training in use of ICT in general. Student teachers are expected to be skilled users of ICT in their day-to-day activities. Knowledge about various software, hardware and their use in educational process is provided.
- ICT pedagogy approach: This approach emphasizes on integrating ICT skills in respective subjects. Drawing on the principle of constructivism, pre-service teachers design lessons and activities that centre on the use of ICT tools that will foster the attainment of learning outcomes. This approach is useful to the extent that the skills enhance ICT literacy skills and the pedagogy allows student to further develop and maintain these skills in the context of designing classroom-based resources.
- Subject- specified approach: In this approach ICT is embedded into one's own subject area. By this method, teachers not only expose students to new and innovative ways of learning, but also provide them with a practical understanding of what learning and teaching with ICT look and feel like. In

this way, ICT is not an ‘add on’, but an integral tool that is accessed by teachers and students across a wide range of the curricula.

- Practice-driven approach: The emphasis is on providing exposure to use of ICT in practical aspects of teacher training. Emphasizing on developing lessons, assignments etc. using ICT and implementing these in their practical work experience at various levels, the students are provided with an opportunity to assess the facilities available at workplace and effectively use their own skills to manipulate these facilities. Based on the concept that the pre-service teacher is a learner, manager, designer and researcher, s/he is expected to research their practicum school’s ICT facilities, design ICT activities with their tutor-teacher, manage those activities in the classroom, and evaluate their effectiveness in terms of student learning.

Ideally, an integrated approach should be followed for developing ICT skills in teaching. Whatever may be the approach followed in the institutions to develop knowledge about ICT, it has its own limitations and coupled with other reasons, they are not making student-teachers fully confident of using ICT in their day-to-day classrooms and other situations. In the opinion of authors, all four approaches are required to develop awareness of expert level skills in student-teachers.

After having looked at the models offered by various scholars in teaching, it might be beneficial to have a look at the studies which investigate the effectiveness of these integration models in the world.

2.7. Studies on the Integration of ICT in Teacher Education Programs

There are various studies aiming at searching for ways to integrate ICT for the purpose of training the teachers on how to use them. There are also studies carried out by instutitions or academics who seek to find out about the way they are implementing at a teacher training instution. In either case one can see the hints for an effective teacher education programme in terms of training the teacher candidates for the new digital era. In this part of the study, related studies in different parts of the world will be mentioned.

In a study carried out by Clift, Mullen, et al. (2001) the following ideas emerged concerning teacher education program design on the impact of technology on teaching and learning to teach.

1) Just in time support on demand is important. That is, faculty and cooperating teachers should be technologically proficient.
2) Support for all teacher education participants is important. That is faculty should learn to incorporate technology into their instruction. This can be done through workshops, easily accessible consultants and sharing of information. This will influence teacher educators' use of telecommunications and that of their prospective teachers.
3) Preservice teacher education has a potential of changing the educational settings. The researchers also think that university can support this by making the resources available when the school context can not.
4) Students of differing abilities do not share their knowledge. Program designers should deliberately create contexts in which prospective teachers share their abilities with one another.

In his study, Ping (2005) tried to find out preservice teachers' technology competency and the change of individual attitudes as a result of taking technology-specific courses. He also tried to investigate their perspectives and experiences throughout their teaching preparation experience. He found out that learning to teach with information technology is an idiosyncratic and developmental process situated in multiple individual and social contexts. The use of information technology helped the preservice teachers upgrade their content knowledge, and developing the meaning of inclusive education, a sense of identity, collegiality and leadership potential. Technology experiences changed their views of teaching and their own perceptions of themselves as teachers.

As Dexter, Anderson and Becker (1995 as cited in Ertmer et al., 2003) explained, 'For teachers to implement any new instructional strategy, they must require new knowledge about it and then weave this together with the demands of the curriculum, classroom management and existing instructional skills'. Teachers need information about how, as well as why, to use technology in meaningful ways. Lack of

knowledge regarding either element can significantly decrease the potential impact that these powerful resources might have on student learning.

Ertmer et al. (2003) tried to find out the effects of electronic models on preservice teachers' perceived ideas about self efficacy regarding technology integration. Exemplary technology using teachers were presented via a CD-ROM and a teacher development tool, called VisionQuest. VisionQuest features the classroom practices of K-12 teachers and is designed to support users' reflections on both the underlying beliefs and classroom strategies that enable exemplary technology use. They concluded that the more ideas students have about technology, the stronger their belief that they can be successful integrating technology into the classroom.

Judgements of computer competency (skills) were not highly correlated with either ideas or confidence for technology integration. This supports earlier research findings (Moursund and Bielefeldt, 1999 as cited in Yıldırım, 2000) that suggests that simple skill training is insufficient to prepare students to use technology in the classroom. Just because students know how to use Word-processing, e-mail, and the Internet does not mean that they know how to use these skills within classroom instruction or that they are confident trying to do so. As a result, as students see new ways to use technology and develop new ideas about technology integration, they develop higher levels of confidence about their ability to use technology in a variety of ways.

In another study carried out by Teo (2009), the relationship between computer self-efficacy and intended uses of technology of student teachers at a teacher training instute in Singapure was searched. The results show that student teachers' perception of their basic technology skills and ability to use technology for pedagogy were significant predictors of their intention to use in either a traditional or a constructivist way.

In the USA, the Ministry of Education carried out a project called 'Preparing Tomorrow's Teachers to Use Technology', which aimed at improving and enhancing the technology preparation of preservice teachers. Brush (2003) carried out a study to support this project. For this reason Arizona State University preservice teachers were provided with opportunities to develop, implement and evaluate their own instructional activities that utilise technology effectively and appropriately in authentic situations. Preservice teachers were also given the myrad of tools necessary to integrate technology into teaching and learning activities. 100 preservice students of elementary education

program were involved in the program. The methodology courses were moved to field based settings.

In a recent study, Duran and Fossum (2010a) tried to support the program 'Preparing Tomorrow's Teachers to use Technology' in the USA. They thought one educational technology course was not enough for preservice teachers and they should see some models either at school or at the practice school. Because of this reason, they focused on the critical components of technology integration (effective faculty modelling of instructional technology or providing technology enriched field experience). They came up with the idea of 'Networked Learning Community' (NLC) which they adapted from Goodlad (1954, as cited in Duran and Fossum, 2010a).

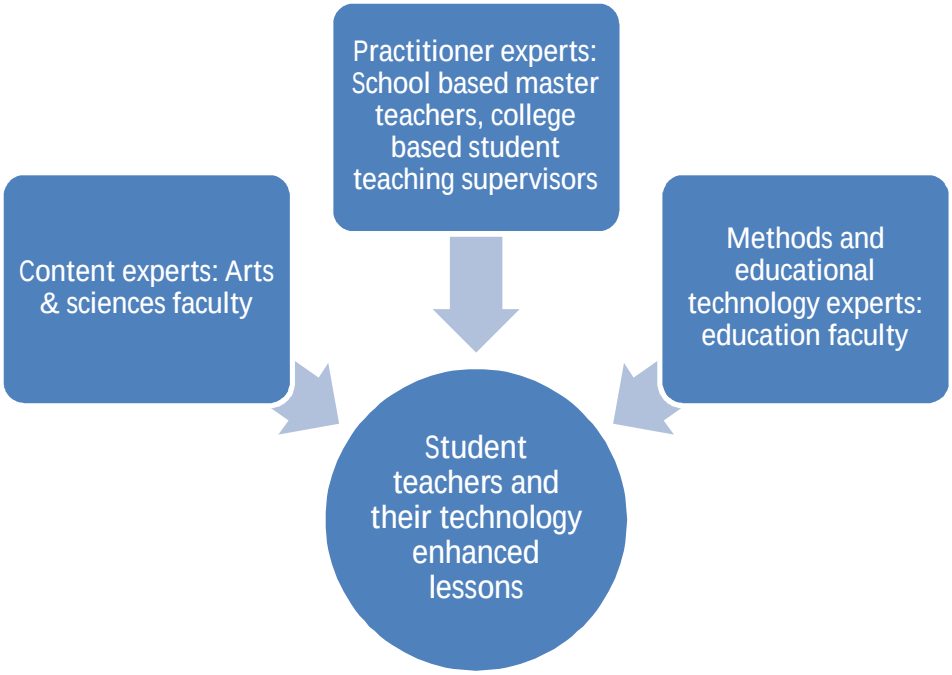


Figure 22. Networked Learning Community. Adopted from Duran and Fossum, 2010a.

Duran and Fossum (2010a) mentioned that effective interaction regarding integration of technology in teaching calls for engagement among three entities: content experts at arts and sciences faculty, methods and educational technology experts at education faculty and practitioner experts at college and practice schools.

Duran and Fossum (2010b) carried out a second study to apply this theory into practice. For this aim, they conducted seven different focus groups which consisted of 4 teacher candidates, 4 cooperating mentor teachers from K-12 schools, 1 university field advisor, 1 teacher from educational technology faculty, one teacher from methods faculty and 1 content faculty member from related school and colleges. Each

community was assigned to develop and field-test authentic projects in which technology enhances teaching and learning in specific subjects.

The researchers tried to find out the impact of the NLC approach to professional development with regard both to technology literacy and to technology integration among K-16 educators. They also wanted to learn the effects of specific kinds of professional development activities offered within the NLC context with regard to promoting and/or influencing participating K-16 educators' professional development on technology integration in the classroom.

The participants formed and implemented technology-rich lessons, maintained journals and developed electronic portfolios. The results showed that project participants made significant increases in their use of computers for 'ordinary purposes'. Generally they improved their confidence and competence in technology literacy and boosted their integration of technology into the teaching and learning process. This research suggests that NLC model provides a venue that fosters genuine dialogue among academicians, K-12 teachers, student teachers and their university supervisors.

In another study, Vallance and Martin (2008) designed a 12-week blended undergraduate course 'Computer applications in Language and Literature' in Singapure. The participants' discussions and physical actions were recorded by a small digital camera attached to the top of the camera they were using. Their actions on the monitor were also recorded. The participants discussed their activities and learning with the researcher. A summary of the discussion was written and posted online within one week for verification/or clarification by each participant. At the end of the 12 week program it was observed that the preservice teachers' pedagogical beliefs changed when immersed in unique synchronous networked collaboration. They also gained competencies which helped them to design courses which supported and improved learning in classes.

In another study in the USA, Jayachandran (2009) attempted to suggest a way to appropriately and effectively integrate computer-related technology in the classroom. By using a case study approach, she examined how two foreign language preservice teachers integrated technology during student teaching, how they used it, the obstacles they had to overcome to succeed in its use, the role of the university supervisor in their attempts to integrate technology, and their general issues and concerns regarding technology integration in the real world context of the field placement sites.

She gathered her data from reflective journals, classroom observations and from the interviews. She found that the technological capability of individual teachers and their field placement mentors (university supervisor and cooperating teacher) interact and jointly affect technology integration. She also came to the conclusion that technology preparation positively affects initiation and adoption of technology in the classroom, but negatively impacts integration as it drives future teachers to chase the latest technologies without learning how to use existing ones effectively. The findings also stimulate attention to what is probably the most determining aspects of technology integration in student teaching-the professional and social partnership involving the university-based teacher education programs and the local schools.

How language teachers apply practical experiences from computer-assisted language learning coursework to their teaching was the topic for another study by Egbert, Paulus et al. (2002). They also examined the ways in which teachers continue their CALL Professional development. In this study 20 English teachers who completed the same graduate level CALL course within the last four years, and are currently teaching were involved. They found out that teachers who use CALL activities are often those who had experience with CALL prior to taking the course, that lack of time, support, and resources prohibit the use of CALL activities in some classrooms and that colleagues are the most common resource of new CALL activity ideas outside of formal coursework. Implications for teacher education are that teachers learn better in situated contexts and technology courses should be designed accordingly.

Butler-Pascoe and Wiburg (2003) report in their study that teachers can provide students with language experiences as they move through the various stages of language acquisition. Beginning with the use of multimedia to provide comprehensible input in the reproduction stage, students progress to programs that require limited responses, and in the more advanced stages, use their second language as they manipulate technology to solve a problem, complete a task, or communicate with real audiences around the world. Through technology based experiences students develop communicative competence by using English both productively and receptively in unrehearsed contexts.

Butler-Pascoe and Wiburg (2003) also emphasize the implication they got from the research that teachers do not have the training needed to integrate technology into their teaching. A strong professional development program is needed to prepare teachers to design effective experiences for second language learners using technology.

After having looked at the studies on the integration of technology in various fields of teaching, it might be useful to have a look at the studies on the integration of technology in English Language Teacher Education programs.

2.8. Studies on the Integration of Technology in English Language Teacher Education in Turkey

There are some important studies on the integration of technology in education in Turkey. Some of these studies are on the integration of technology in the teaching of subjects like maths, science and on English Language Teaching. For example, Akçaoğlu (2008) tried to explore the technology integration approaches and practices of preservice and in-service English language teachers in his study. The research focused on three aspects of technology integration in English Language Teaching within the context of private universities in Ankara. 120 in-service and 62 preservice teachers were involved in the study. First their computer usage frequencies, computer competence levels, perceived barriers to technology integration and attitudes towards computers were explored. He tried to explore three aspects of technology integration in English Language Teaching within the context of private universities in Ankara, Turkey. He also scrutinized the educational value they assigned to technology usage in their language teaching practice and their ideas of an effective technology integration. He found out that teachers use computers at their schools at limited frequency; they indicated high levels of instructional computer usage outside the school and technology competence. Although these teachers thought that technology would help make their lessons more student centered, they mentioned using technology as teacher tools rather than student tools which help foster higher thinking skills and learner autonomy.

He concluded that the schools in Turkey were still at the stage of fighting with first order barriers, even at private instutions, indicating that a vision towards technology integration lacks. As for the educational value assigned to computer usage in ELT, it was concluded that instutional barriers were more of a concern for the teachers as they did not have a chance to delve into actual instructional usage and the ICT courses at college were not preparing the teachers for effective integration due to lack of proper training activities.

In a recent study at Middle East Technical University (METU), Karakaya (2010) tried to investigate the attitudes of English language teachers towards computer

technology and their use of technology in language teaching. The findings of the study revealed that a great majority of teachers had positive remarks for integrating technology in language teaching. However, they had difficulty in integrating technology into their instruction effectively. He also found out that the teachers did not use computer technologies as instructional tools. The findings showed that the respondents did not have professional training on integrating technology into education. Thus, he suggested that in order to have teachers who can efficiently use computer technologies in language instruction, preservice English language teacher education programs should provide technology related courses for their students. It is also suggested that teachers be provided with in-service training on technology integration in order to realize effective use of technology in education.

Top (2007) on the other hand tried to investigate the secondary school teachers' perceptions of technology, technology integration processes into their lessons and the ways they use technology for professional development. He wanted to prepare technology integration guidelines to enable English teachers to integrate technology into their teaching. He studied with 17 English teachers from different schools. He found that private high school teachers perceived themselves more knowledgeable in technology knowledge than state, Anatolian and vocational high school teachers. High school teachers integrated technology into planning, instruction, evaluation and assessment and professional development more than the other English teachers. He also proposed guidelines for technology integration. He stated that the proposed guidelines had four components: 1. Shared technology integration vision 2. Teachers' professional development and support 3. Budgeting for appropriate technological and material facilities, support and professional development 4. Curriculum issues.

Caner (2009) is another scholar who tried to develop a model based on blended learning for preservice teaching practice course in ELT program at Anadolu University. 18 fourth year students participated in the study. He surveyed the participants' attitudes towards the web (computer) based instruction and their satisfaction with the blended teaching practice course. Results showed that preservice teachers had positive attitudes towards the web component of blended teaching practice course and they were satisfied with the lesson. The findings indicated that the preservice teachers thought that participating in a course level blended teaching practice course increased their teaching skills, primarily on preparing lesson plans and the skills on performing teaching practices.

Akbulut (2010) also observed that most researchers focused on K-12 settings in Turkey (Akbaba-Altun, 2006; Goktas, Yildirim & Yildirim, 2008; Özdemir & Kilic, 2007; Yucel, Acun, Tarman & Mete, 2010 as cited in Akbulut, 2010), but the studies on higher education were not many. In one of these studies about higher education setting, Gülbahar (2008) claimed that teacher training programs did not facilitate the effective integration and use of ICTs for instructional purposes. On the other hand, Yücel et al. (2010) found that ICT knowledge of teachers was a crucial variable in ICT integration, which underlined the importance of teacher training institutions to facilitate ICT integration practices in formal instructional settings. In this regard, institutional evaluations are necessary. That is, investigations reflecting the ICT integration levels of teacher training institutions are needed, and conducting these investigations through the perspectives of primary participants (i.e. pre-service teachers) could lead to fruitful analyses.

After having investigated all these studies on the integration models, one should also have an idea about how much should teachers know about technology, not only English teachers, teachers of all subjects. Then it can be decided better what should be included in a technology integration program in a teacher training institution.

2.9. Technology Literacy for Teachers

As it is understood, preservice teachers may follow many technology integrated trainings, read articles, implement courses to enhance their knowledge of technology. The subject they need to know is to some basic but important issues about using technology while teaching. Zhao (2003) in his study gives a summary of what teachers should know about using technology by retelling a fable by Aesop:

> One day, after a very hot weather which has dried up all the streams and ponds, the crow fears that it will die of thirst. Coming upon a pitcher of water left in a garden, the crow tries to drink from it, but there is only a little water left in the bottom and his beak can't reach it. Having thought for a while, the crow hits upon the solution of dropping in pebbles until the water level rises sufficiently for him to drink ("Aesop").

Zhao comments on this story from the perspective of the essence of technology and what teachers should exactly do to use it effectively in their teaching. He mentions that the pebbles were simply irrelevant physical objects until four things happened: a)

the crow felt thirsty b) the crow saw a pitcher of water c) the water is too low for her to reach d) she realized that the pebbles could be used to raise the water level.

Connecting pebbles to her need for water, the crow turns irrelevant objects into a tool, a technology, a solution to her problem. At this moment, the pebbles are no longer pebbles but a powerful tool for the thirsty crow. What turns the pebbles into a tool is the crow's knowledge of the relationship between a problem and the quality of an object.

He claims that teachers' uses of technology have some striking similarities. Computers are irrelevant and useless as pebbles until they are used to solve a problem. They only become a tool, a means to an end, when they are connected to a problem. Hence, for teachers to use a technology, they need to know its inherent functions. Knowledge of the functions of a technology helps teachers not only make the connection between the technology and existing problems, but also identify problems. He summarizes teachers' technology knowledge consisting of three elements:

a) knowledge of problems that can be solved by technology
b) knowledge of a technology that can solve their problems
c) knowledge of how technology can solve their problems.

Teachers who are sufficiently equipped with this knowledge should be able to decide when to use technology and when not to. They should also be able to select technologies appropriate for their current problems.

Zhao states the facts of the research that the effects of technology are significantly mediated by the teachers' existing pedagogical knowledge and beliefs (Becker, 2000, Bruce, 1993; Dwyer, Ringstaff And Sandholtz, 1991; Fisher, Dwyer, and Yocam; Zhao, Pugh, Sheldon, and Byers, as cited in Zhao et al., 2002). In other words, teachers' technology knowledge should be integrated with their pedagogical knowledge.

Likewise, Khirwadkar (2006) makes a list of the skills and competencies to be developed on the part of student teachers:

- Surfing the Internet and locate useful information for the development of lesson plans.
- Developing lesson plans incorporating student use of technology in the learning process.

- Evaluating and selecting appropriate software for a particular subject and per student needs.
- Generating printed documents like student assignments, newsletters, communication, etc. utilizing a variety of applications software like word processing and desktop publishing.
- Managing student data; using data management tools for efficiently managing learning.
- Using technology to gather, organize, and report information about student performance like Excel and Access for database management.
- Developing tools to evaluate technology-based student projects including multi-media, word processing, database, spreadsheet, Power Point, desktop publishing, and the Internet/telecommunications.

The list above is all about what kind of knowledge teachers of any subject should hold to use technology to enhance their teaching. However, the consciousness of when to use technology and when not to use it should also be taught at the teacher training programs. This might be possible by providing them with some pedagogical course about the use of technology, which is explained under the term 'Technological Pedagogical Content Knowledge' by Mishra and Koehler (2006).

2.10. Technolological Pedagogical Content Knowledge

Teaching is a complex cognitive skill occuring in an ill-structured, dynamic environment (Leinhard and Greeno, 1986; Spira, Coulson, Feltovich and Anderson, 1988; Spira, Feltovich, Jacobson and Coulson, 1991, as cited in Mishra and Koehler, 2006). Mishra and Koehler (2006) state that knowledge bases of teacher education have focused on the content knowledge of the teacher. As knowledge of technology became an important aspect of overall teacher knowledge, prior to Shulman's seminal work on pedagogical content knowledge, knowledge of content and knowledge of pedagogy were considered separate and independent from each other. Similarly, today knowledge of technology is often considered to be separate from knowledge of pedagogy and content. Mishra and Koehler (2006) offered the term 'Technological Pedagogical

Content Knowledge' (TPCK) which is the intersection of all and which the recent teachers should have as seen in Figure 23.

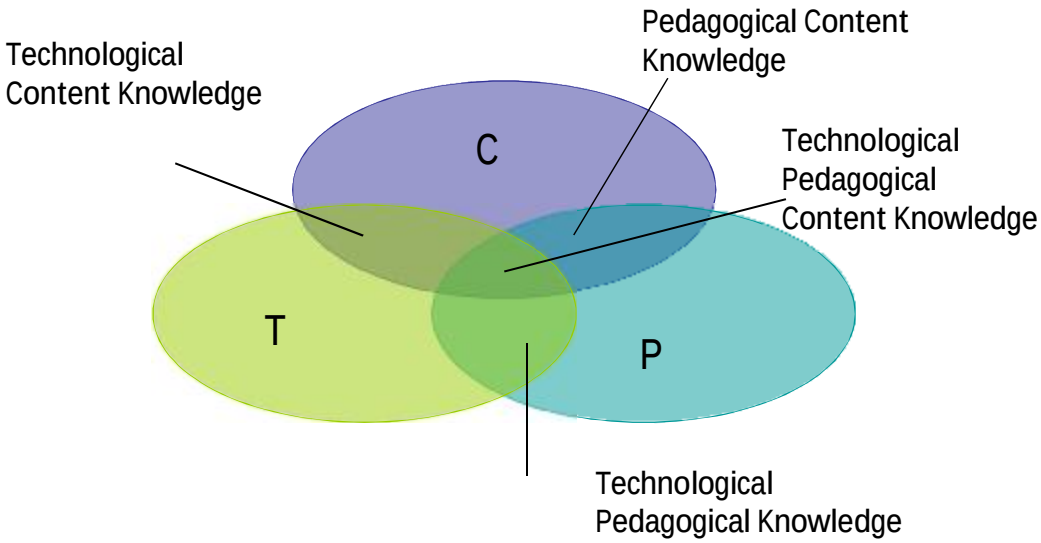


Figure 23. Technological Pedagogical Content Knowledge. Adopted from (Mishra and Koehler , 2006).

As depicted in Figure 23, a teacher should have pedagogical content knowledge, technological content knowledge, technological pedagogical content knowledge to have the Technological Pedagogical Content Knowledge (TPCK) as it is the intersection of all. Khirwadkar (2006) states that the aim of teacher education is to develop skills and appropriate knowledge among preservice teachers for using and integrating the correct technology in an appropriate manner. Every teacher should know how to use technology, pedagogy and subject area content effectively in their daily classroom teaching. It is obvious that only introducing technology to the educational process is not enough. Teachers can bring change in the education process through the way they integrate technology. From this point one can conclude that attitude and self-efficacy towards technology play an important role. Teachers making use of educational technology means that they can not only use the high tech tools but also can understand the complex web of relationships among users, technologies, practices, and tools. Teachers must understand their role in technologically-oriented classrooms. Khirwadkar (2006) defends the idea that knowledge about technology is important in itself, but not as a separate and unrelated body of knowledge divorced from the context of teaching--it is not only about what technology can do, but perhaps what technology can do for them as teachers.

According to Mishra and Koehler (2006) technology integration entails the understanding and negotiating of the relationships among the aforementioned three components. Good teaching is not simply adding technology to the existing teaching and content domain. Rather, the introduction of technology causes the representation of new concepts and requires developing sensitivity to the dynamic, transactional relationship between all three components suggested by the TPCK framework.

- Using the Internet to support professional development including locating professional organizations, communicating with other teachers electronically, and participating in on-line professional development workshops and seminars.
- Developing assignments and project work for students; giving them broader and deeper knowledge in a field of study; developing critical thinking and infusing creativity among students.

Georgina & Olson (2008) state that technology alone does nothing to enhance pedagogy, successful integration is all about the ways in which technological tools are used and integrated into teaching. Similarly Akkoyunlu (2002) states that teachers should relate their study field with the use of technology. The strategy, method-technique, evaluation, and the teacher's knowledge and experience determines which technology to use in the classroom. Because of this reason, educators should have the necessary knowledge of both pedagogy and instructional technology.

Odabaşı (2000) in her survey 'Faculty Use of Technological Resources in Turkey' concludes that the instutions should provide in-service training for the use of technology resources in teaching and learning environments and teaching resources should be easily available and accessible to faculty members. Moreover, she also mentions about the need for released time and scholarships to faculty so that they can improve themselves in the new fields of educational technology such as the use of technological resources.

OECD report entitled 'Education and New Technologies: Teacher Training and Research' states that the potential of the new information technologies for improving learning and teaching will not be realized unless teachers are well trained and retrained in the pedagogical use of technology in the classroom (OECD, 1992, as cited in Orhun, 2002).

Collier, Weinburgh and Rivera (2004) suggest that teacher educators should consider that technology literacy no longer be acquired through a series of discrete, perhaps isolated courses, but integrated in and across the curriculum content. They also advise teacher educators to design programs that provide pre-service teachers with multiple, real world opportunuties to learn and apply technology skills systematically and constructively in order to scaffold the mastery of more sophisticated technologies. The main object is the teachers' improved disposition toward the fitness to select and effectively use appropriate strategies in a variety of professional applications .

When all these studies and their findings are concerned, it is understood that teachers' existing beliefs with respect to the content and pedagogy of their subject matter and practices for adoption of new media are very important. Because these beliefs and models for practices are formed during initial teacher education, it is essential that computers are integrated into teacher education programs.

As Unesco Report (2003,pp 1) states:

> If future citizens are to maximize the power of ICT, teachers, the curriculum and the school are critical elements because it is the school's responsibility to teach the students the essentials of the accepted content knowledge, esssential skills to utilize ICT and the attitudes and the abilities to become life-long learners. Teachers, as well as other educators, must have the knowledge and skills needed to integrate ICT effectively into the learning environment. If not, students will not be exposed to the wealth of information resources available and will be prevented from learning to use ICT themselves.

To conclude, teachers should have the technological pedagogical content knowledge as Mishra states, they should know when and how to integrate which technology into their teaching. They should be aware of the fact that technological tools can only work best when they solve a problem, in this context help students to learn better. As Zhao (2003) explains with the Aesop's fable, technology is like a pebble around. The important matter for teachers is to use it to help their students learn, like the crow throwing pebbles into the pitcher to have the water to drink. All this knowledge takes us to the point that something more should be done at the teacher training instutions for fostering the technological pedagogical content knowledge of the preservice students besides the computer and CALL courses which are already being taught.

CHAPTER 3

METHODOLOGY

3.1. Introduction

In this chapter, the methodology of the study, the participants and the data collection tools will be introduced. The chapter also includes the research design, the demographic information about the participants and the procedure of the study. Finally, the quantitative and the qualitative data analysis used are explained.

3.2. Research Design

This study is conducted through a mixed-method approach as the research questions have both qualitative and quantitative nature. Data collection and analysis techniques from quantitative and qualitative methodologies were implemented. Creswell (2006) explains that a mixed methods design is useful when either the quantitative or qualitative approach by itself is inadequate to best understand a research problem or the strengths of both quantitative and qualitative research can provide the best understanding.

3.3. Participants

The participants of this study were 27 ELT students whose ages ranged between 21-27. They were attending the last year and were preservice English Language Teachers who were practicing teaching experience in different state schools. 19 female and 8 male preservice teachers participated in the study.

Convenience sampling method is used as the researcher carried out the study with the preservice teachers who are taking her face-to-face ‘Material Development & Adaptation for Foreign Language Teachers’ course. As the study included continuous communication and the completion of various tasks the researcher preferred to carry out her study with her class. Dörnyei (2007) reports that convenience sampling is not purposive but largely practical: the researcher uses those who are available. In addition

Creswell (2006) explains that in many experiments only a convenience sample is possible because the investigator must use naturally formed groups (e.g. a classroom, an organization, a family unit) or volunteers.

As mentioned before the preservice teachers were attending the last year at their faculty. Up to that year they had taken various courses in which they used some technological programs and tools. In the first year, they took 'Computer 1' and 'Computer 2' respectively in which they learned how to use word, excel and Power Point. In the first year in the course 'Listening and Pronunciation I' and 'Listening and Pronunciation II' participants carried out some presentations for which they had to use computers and CD players. They were required to shoot some short movies by using the moviemaker program and to upload these movies on Youtube. They also investigated the use of blogs and podcasts and Google Earth for the requirements of the same lesson. In their second year, in the second semester the participants took 'Instructional Technology and Material Development' course. They prepared Power Point and designed a website. In the third year, again in the second semester, the participants took the courses 'Computer Assisted Language Education' and were assigned with projects about how to use technology to teach 'vocabulary, grammar, reading, and writing'. Participants prepared a mini thesis about their subject.

In addition to their background at the department, the participants all had a computer at home and their characteristics in relation to computers are given below in Table 1.

Table 1

Participants' Characteristics in Relation to Computers

Categories	Never %	Once/year %	Once/month %	Once/week %	Daily %
How often do you use the Internet? (The Internet Explorer)	0	0	0	7.4	92.6
How often do you use the electronic mail? (e-mail, bulletin boards)	0	0	3.7	14.8	81.5
How often do you use Word Processing Software? (Word, AppleWorks, etc.)	0	0	7.4	29.6	63
How often do you use Spreadsheet Software? (Lotus, Excel, etc.)	7.4	25.9	33.3	18.5	14.8
How often do you use the Presentation Software? (Power Point, AppleWorks, etc.)	3.7	0	29.6	40.7	25.9

In Table 1 it is clearly seen that 92.6 % of the participants used the Internet on a daily basis and 81.5 % of them check their e-mails daily. 63 % of them use the Word Processing Software daily and only 7.4 of them use it once a month. 33.3 % of the participants use the Excel once a month and 7.4 % never use it at all. When it comes to Power Point, it is seen that 40.7 % use it once a week and 29.6 % use it once a month.

3.4. Instruments

Three different instruments were used to collect data. These were: 'The Computer Technology Survey' (Logue, 2007) which was a likert scale, 'ICT Can do Checklist' (Davies, 2006) which was a checklist and a semi-structured interview. Detailed information about each instrument is given below.

3.4.1. The Computer Technology Survey

This instrument 'The Computer Technology Survey' (See Appendix A**)** aimed at measuring and determining the attitudes and self-efficacy of preservice teachers. It consisted of two parts; Attitudes toward Computer Technologies (ACT) which includes 19 items to measure an individual's attitudes toward the use of computer technologies and Self-Efficacy for Computer Technologies (SCT) which included 47 statements about individual's confidence with computer technologies.

This survey was constructed and modified by Logue, P. (2007) from Kinzie et al. (1994). The Computer Technologies Survey was also found to be reliable and valid by Logue (2007) in his study. 'The Attitudes toward Computer Technologies' scale had an alpha reliability coefficient of. 87. The reliability of the two subscales, which constituted the scale, were (alpha = .78) for the usefulness scale and (alpha = .87) for the comfort/anxiety scale. The Self-Efficacy for Computer Technologies scales had the following reliability alpha coefficients: operating systems (.88), the Internet (.88), e-mail (.94), word processing (.92), spreadsheets (.92), and database management (.92).

The researcher got permissions both from Kinzie and Logue to use this questionnaire in her study.

3.4.2. ICT 'Can do' Checklist

This instrument was aimed to measure and determine if they have the basic computer skills to use Web 2.0 tools and software for teaching English as pretest and post test. ICT "can do" list **(**see Appendix B**)** was a checklist for teachers of foreign languages' compiled by Graham Davies, who was the chief editor of the website ICT4lt. ("ICT4LT"). The ICT4LT website is a collection of training modules in Information and Communications Technology (ICT) for Language Teachers. The document covers selected generic applications (e.g. *Word*, browsers, email software, *Power Point*) and software applications that are particularly useful for language teachers. Under the heading for each application there is a range of essential tasks that the teacher should be able to carry out in order to feel comfortable working with the software - a so-called "can do" list. The applications and the tasks have been selected according to their usefulness for teaching foreign languages. The 'ICT can do checklist'

was found to be reliable by the researcher in this study. It had an alpha reliability coefficient of.82 for main items, .98 for the sub items.

The researcher got permission from Graham Davies to use the 'ICT Can do Checklist' in her study.

3.4.3. The Interview

The interview aimed to find out the perceptions and future plans of preservice teachers in terms of technology integration in education. It also aimed to receive some feedback about the online course. The data collected from the interview was also used to support the data collected through the questionnaire and the checklist. The preservice teachers were expected to respond to the 3 open ended questions which were prepared by the researcher. The questions were:

1. What do you think about using technology for teaching and learning English?
2. What was difficult (problematic) for you about the online educational technology course?
3. Are you planning to use some of these software when you become a teacher? Why/ why not?

However, according to the responses the researcher prompted questions in order for clarification. The interviews were conducted when the students completed the online courses through which they developed and implemented their experiences in the classroom by using one of the Web 2.0 tools for teaching English. The preservice teachers all agreed to have their interviews recorded by the researcher. The interviews lasted for 3-6 minutes. The audio files were transcribed by the researcher.

3.5. Procedure

Data were collected during 2009-2010 Fall semester in the course 'Language Teaching Materials Adaptation and Development'. As part of the course an online education based on using Web 2.0 tools was designed. The data for this research was taken from this online component of the lesson. Preservice teachers enrolled on the learning platform (moodle.emsalates.com) to follow the weekly studies. The online

course included the reading of some articles titled ‘What is Moodle?’, ‘Technology Enhanced EFL syllabus Design and Materials Development’,Tapped in: a New online teacher community concept for the next generation of internet technology, ‘Looking at’ looking up or keeping up with people? Motives and uses of Facebook’, ‘The use of blogs in ELT’, ‘The use of Wiki in the EFL class’. The course also included some informative texts through which participants had the chance to learn some technical issues on the internet such as: ‘Google search’, ‘Technological Terms’, ‘How to write a professional e-mail’, ‘file extensions’, ‘ ELT links’, ‘Some Evaluated ELT Websites’ ‘Articles on the use of Internet in and some PowerpPoint, pdf and video files which gave information on how to use Web 2.0 tools and software like ‘Voki, Wiki, Glogster, Xtranormal, Storybird, Wordle, Podcast, Animato, VoiceThread’. The online course also included an official document taken from MoNE about what kind of technology knowledge is required from English teachers to make them more conscious about the importance of an online course carried out in this study. In one week, the participants were given a document titled ‘A sample evaluated Website’ which gave some information about how to choose the websites to teach English. To enhance this knowledge, the researcher also asked them to do a similar evaluation by using the ELT Website Evaluation form she suggested (see Appendix E**)**. Towards the end of the online course the researcher organized a software workshop where participants sat in groups and investigated the given Web 2.0 tool or software and provided with a sample to the class by explaining how they formed it. This was the only part of the course which took place in the class.

Apart from the pdf, word documents, video tutorials, links to the websites, the online course also included three forums: the first one was asking the particapants about their feelings about the online educational technology course, in the second forum participants were required to suggest a link to find out the technological terms and the last forum was about how to add one’s signature to one’s e-mail. The topics for the forums were decided by the researcher to motivate the participants to use the internet more professionally. Because of this reasons only the first forum was asking about what they thought about the online course, whereas the other two required the sharing of knowledge. The researcher used forum as all participants would read each other’s response and would learn from each other, especially in last two forums.

The students’ access to this course was easy as they only clicked on the researcher’s moodle website and choose their course and entered their password which

they had formed with the help of the researcher.The introduction to the course is given in Figure 24 below.

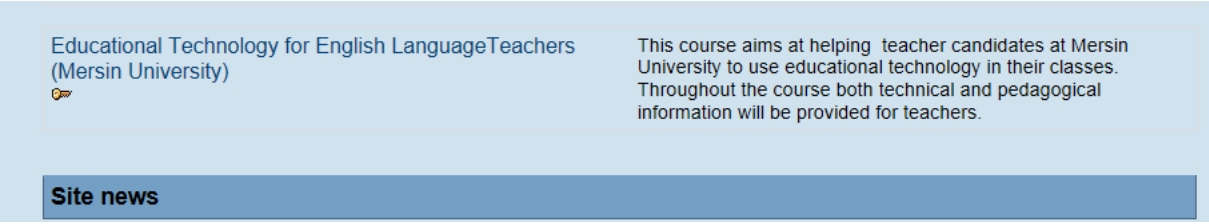


Figure 24. A Screenshot from the Online Educational Technology Course. Retrieved January 22, 2012 from: moodle.emsalates.com.

In Figure 24, the screenshot from the researcher's main page is given. When students click on the addresss www.moodle.emsalates.com, they see this explanation about their course. When they click on the course and enter their usernames and password they log in. The main course page they find after log in is illustrated in Figure 25 below.

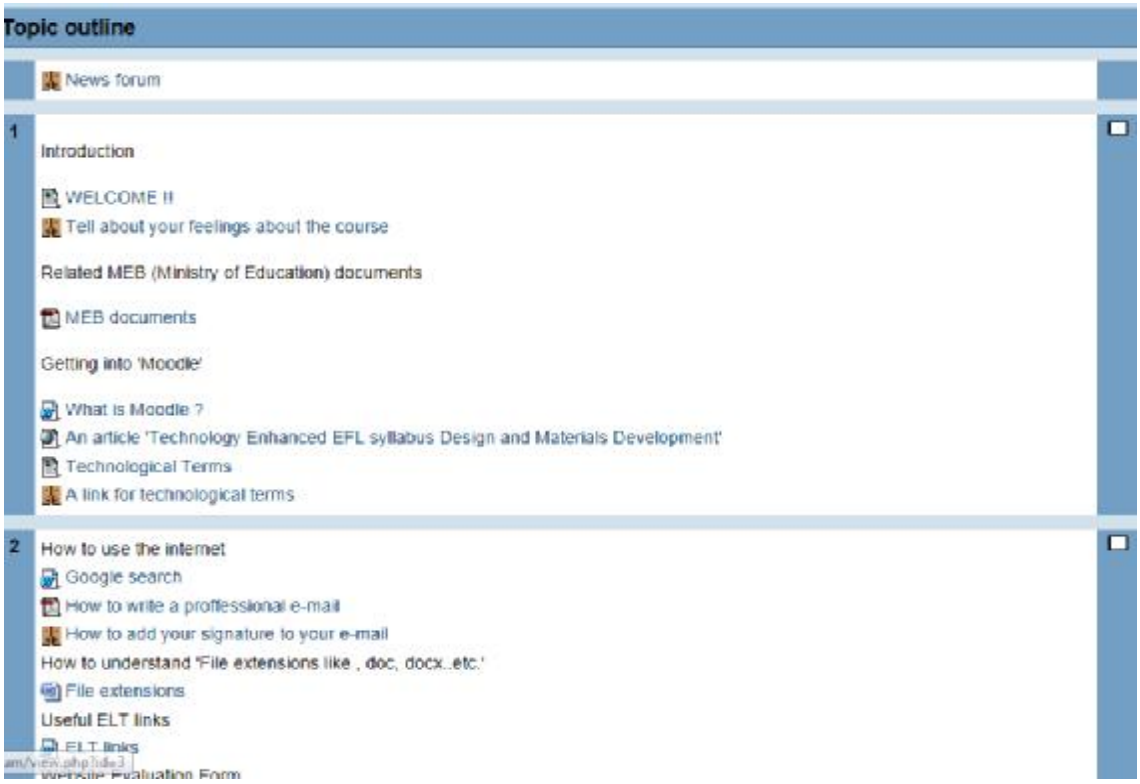


Figure 25. A Screenshot from the Online Educational Technology Course. Retrieved May 5, 2012 from: moodle.emsalates.com.

The main page of the online educational technology course, as can be seen in Figure 25 is divided into different sections. The numbers on the right symbolize the number for the week, that is Week 1 includes topics like 'Introduction, the introduction of the learning platform, some MoNE documents concerning the technology knowledge of an English teacher and an article introducing the use of technology in English language teaching. The participants had the opportunity to see all the topics stated in the course outline below on the moodle course.

Online Educational Technology Course outline and syllabus

Educational Technology for English Language Teachers

www.moodle.emsalates.com

Course Description**:** This course introduces the selection and use of technological resources in the language classroom with special emphasis on foreign language instruction. Students will learn how to integrate appropriate technologies into their classroom instruction to enhance language learning and language performance. The course will also provide pre-service teachers with knowledge of and hands-on experience with integrating technology into classroom instructional activities.

Course objectives: 'Educational Technology for English Language Teachers' is an introductory course designed to train pre-service English Language Teachers in the possibilities and practical applications of new media and new technologies for classroom and individualized instruction. The Internet in English language teaching, the evaluation of web pages and the use of Web 2,0 tools will also be covered in the course. The course will conclude with individualized curriculum integration projects, each designed to create 'classroom ready' instructional technology tools for course participants. The course will seek to balance sound educational theory with practical hands-on use of instructional technology tools.

Course requirements**:** Students should have access to the Internet, should know the basics of word processing, e-mail use and WWW navigation.

Students were also given the detailed course outline on the website as follows:

Course Outline

Week	Topic	Necessary documents or tools
	Introduction Participants will get acquainted with the course and 'Moodle' Online Classrooms 'MOODLE' learning platform MEB perfomance documents Terms about Technology	**Book chapter:** Technology & Teaching English Language Learners: Introduction (Butler, Pascoe &Wiburg (2003) **Article** Robb, Thomas.(2004)Moodle: A Virtual Learning Environment for the Rest of Us. Tesl-Ej. Vol.8. No.2 **Article:** Nguyen, L. (2008) Technology-Enhanced EFL Syllabus Design and Materials Development. Retrieved from: **http://www.ccsenet.org/journal/index.php/elt/article/viewFile/465/475**
	The Internet How to use the Internet Activities on a directory search of the Internet Searching the Internet with kewyords and URL	**Articles:** Schlager, M., P. Schank. (1997). *TAPPED IN: A new on-line teacher community concept for the next generation of The Internet technology.* CSCL '97 Proceedings.
	The Internet for Language Teachers Useful sites for teaching English Evaluation of ELT web pages Skype, Facebook, Twitter in EFL	Joinson, A. (2008). *'Looking at', 'Looking up' or 'Keeping up with' people? Motives and uses of Facebook.* CHI 2008 Proceedings – Online Social Networks.
	Blogs and Blogging in Teaching Blogger Necessary information to about blogging How to use blogs to teach	**Article:** Kavaliauskiene, G., L. Anusiene, V. Mazeikiene. (2006). *Webblogging: Innovation for communication in English Class.* Electronic Journal of Foreign Language Teaching; 3*(2),* 220-233. Students will start their own blog and send their first post on the topic ' How is it to be a 4th year student at university?' Ss will embed their further work with Web 2.0 tools on this blog and put their link on the class blog (http://www.ide401.blogspot.com/)

	The use of Wikis in EFL classrooms How to use wiki in EFL	**Article** Parker, K., J. Chao. (2007). *Wiki as a teaching tool.* Interdisciplinary Journal of Knowledge and Learning Objects; 3, 57-71. Ss will create a wiki for teaching a skill and put the link on their blog
	Digital Storytelling How to use storybird	Ss will write a story by using Storybird and embed it on their blog
	Podcasting in Teaching Audacity site and download Audacity tutorial Hands on Activity ' Creating a podcast for EFL class'	**Link:** **http://podcasterpaul.wikispaces.com/** **Resources+for++Teachers** **http://www.teachingenglish.org.uk/think** **/articles/podcasting-elt** Ss will create a podcast on ' the use of podcasts in teaching English' and embed it on their blog.
	Using web 2.0 tools Voki Wordle	Ss will create an avatar by using Voki and it will make a short speech introducing themselves. The Voki will be embedded on their blog. SS will create a wordle on any subject and display it on their blog.
	Web 2.0 workshop	Working in groups on a free software and introduce it in the class Glogster .http://edu.glogster.com/http://www.teachertrainingvideos.com/glogster/index.html (training video) VoiceThread . http://VoiceThread.com/ http://edte.ch/blog/2010/01/22/video-of-my-VoiceThread-presentation/VoiceThread video http://www.teachertrainingvideos.com/VoiceThread/index.html (video tutorial) http://www.teachertrainingvideos.com/englishCentral/index.html Xtranormal http://www.xtranormal.com Animato .http://animoto.com/ Wallwisher http://www.wallwisher.com/ http://www.teachertrainingvideos.com/wall/index.html Wallwisher training video
	Integrating Web 2.0 into teaching English Sample lesson plan	Preparing a lesson plan by making use of free software for teaching a specific skill (writing, reading, speaking, vocabulary, listening) Sending the lesson plan to the instructor through e-mail.

Preservice teachers created their individual blogs through which they were able to experience the applications of above mentioned Web 2.0 tools. The researcher collected the links of the students' blogs in class blog through which they could have the opportunity to share ideas about each other's production.

3.5.1. The Role of the Researcher in the Study

The researcher was already the teacher of the participants for the course named 'Material Development and Adaptation for Foreign Language Teachers'. She met the participants each week for three hourse for her course. She already had taught the same students some various subjects in the previous years as she was a full time instructor at the department where the study was carried out. The researcher designed the online course and announced it to the participants, she carried out the interviews, collected the ELT website evaluation forms, lesson plans in which participants integrated technology into their teaching, she monitored the participants through e-mails and through verbal communication at school. The researcher also organized the 'Elt web 2.0 tools and software workshop at school' and 'Microteaching' sessions at school. As the study consisted the collection of both qualitative and quantitative data, the participants felt the presence of the researcher throughout the online course and data collection. The researcher collected all the data and interpreted it.

3.5.2. The Implementation of the Online Educational Technology Course

The Online Educational Technology Course Outline & Syllabus (See Appendix D**)** was handed in to the preservice English Language Teachers at the beginning of the study and the preservice teachers were informed about the learning platform –Moodle- at a meeting. They were given the passwords to access the course and were shown how to log in to the Moodle course by the researcher. They also learned how to join discussion forums and chats on the Moodle course at this meeting.

The researcher designed the Moodle course tasks by using topic design, that is each week preservice teachers were informed about what topic would be studied by looking at the course on the screen. The researcher informed them that they would do the related tasks (read articles, watch online tutorials, implement a Web 2.0 tool) for each week. The screenshot from the course is seen in Figure 26 below.

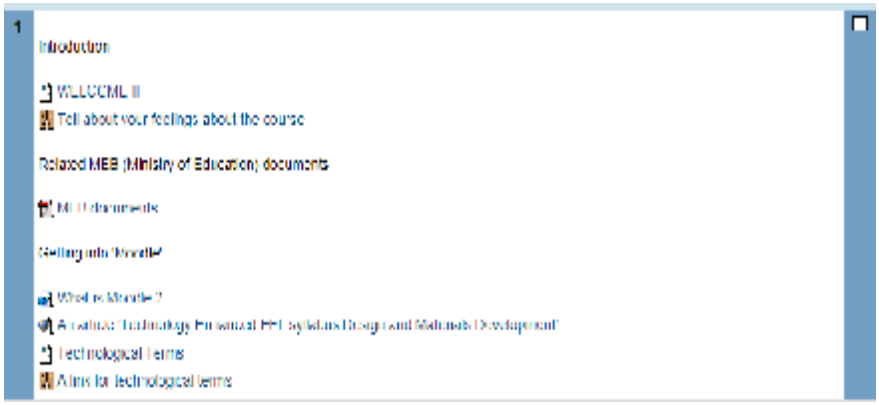


Figure 26. A screenshot from Moodle 'Online Educational Technology Course'

As it may seen from the Figure 26 above, for each topic necessary documents and videos are uploaded under the related topic. For example, at the beginning of the course the researcher prepared an introductory course to acknowledge students about the format of the course, to demonstrate what is expected from them regarding technology when they become English teachers in Turkey (through MoNE documents), to inform them about the platform of the online course (What is Moodle?) and to inform them about the websites which provided information on the technological terms. This topic also included a forum in which participants wrote about how they felt at the beginning of the course. The activities prepared for each topic for what purposes will be explained in the next section.

3.5.3. Description of activities in the online educational technology course

In this section the activities carried out for each topic will be explained. What kinds of documents and videos are utilized will be given through tables for each topic.

Table 2

Description of Activities for Topic 1

Topic 1

Subject: Introduction to the course

Time: A week

Aim: To introduce the online learning platform, to inform the necessity of the course for an English teacher

Materials:

Book chapter:

Technology & Teaching English Language Learners: Introduction (Butler, Pascoe &Wiburg (2003)

Robb, Thomas.(2004)Moodle: A Virtual Learning Environment for the Rest of Us. Tesl-Ej. Vol.8. No.2

Nguyen, L. (2008) Technology-Enhanced EFL Syllabus Design and Materials Development.Retrieved from: http://www.ccsenet.org/journal/index.php/elt/article/viewFile/465/475

Official document

MoNE Performance Documents (Terms about technology)

Tasks: To read the all the necessary documents critically

Table 3

Description of Activities for Topic 2

Topic 2

Subject: The Internet

Time: A week

Aim: To use the internet effectively (to make a directory search, searching the internet with keywords and URL

To enable participants to write professional e-mails

To enable participants to add their signature in their e-mails

To inform the participants about file extensions like “doc, jpeg, etc.”.

Materials:

Article:

Schlager, M., P. Schank. (1997). *TAPPED IN: A new on-line teacher community concept for the next generation of The Internet technology*. CSCL ’97 Proceedings.

Document ‘Google Search’

Document ‘ How to write a Professional e-mail’

Document ‘ File extensions’

Document ‘ELT links’

Document ‘ ELT website evaluation form’

Document ‘ Some Evaluated ELT websites’

Tasks: To read the all the documents critically

To post to the forum about ‘ how to add your signature to your e-mail’

To evaluate an ELT website with the form provided in the course

To make the particpants aware of the useful sites for teaching English

Table 4

Description of Activities for Topic 3

Topic 3
Subject: The Internet for Language Teachers **Time:** a week **Aim:** to inform the participants about the opportunities that the Internet provides for English teachers. **Materials:** Joinson, A. (2008). *'Looking at', 'Looking up' or 'Keeping up with' people? Motives and uses of Facebook.* CHI 2008 Proceedings – Online Social Networks. **Task:** to read the article critically

Table 5

Description of Activities for Topic 4

Topic 4
Subject: Blogs and Blogging in Teaching **Time:** a week **Aim:** to inform the participants about the use of blogging in English language teaching **Materials:** Kavaliauskiene, G., L. Anusiene, V. Mazeikiene. (2006). *Webblogging: Innovation for communication in English Class.* Electronic Journal of Foreign Language Teaching; 3*(2)*, 220-233. **Tasks:** Participants will start their own blog and send their first post on the topic ' How is it to be a 4th year student at university?' Particpants will embed their further work with Web 2.0 tools on this blog and put their link on the class blog (http://www.ide401.blogspot.com/)

Table 6

Description of Activities for Topic 5

Topic 5
Subject: The use of Wikis in EFL classrooms **Time:** a week **Aim:** How to use wiki in EFL **Materials:** Parker, K., J. Chao. (2007). *Wiki as a teaching tool.* Interdisciplinary Journal of Knowledge and Learning Objects; 3, 57-71. **Tasks:** Ss will create a wiki for teaching a skill and put the link on their blog

Table 7

Description of Activities for Topic 6

Topic 6
Subject: Digital Storytelling **Time:** a week **Aim:** How to use storybird **Materials:** Video tutorial on Moodle **Tasks:** Ss will write a story by using Storybird and embed it on their blog

Table 8

Description of Activities for Topic 7

Topic 7 **Subject:** Podcasting in Teaching **Time:** a week **Aim:** **Materials:** **http://podcasterpaul.wikispaces.com/** **Resources+for++Teachers** **http://www.teachingenglish.org.uk/think** **/articles/podcasting-elt** **Tasks:** Ss will create a podcast on ‘ the use of podcasts in teaching English’ and embed it on their blog.

Table 9

Description of Activities for Topic 8

Topic 8 **Subject:** Using Web 2.0 tools in teaching English(Wordle & Voki) **Time:** a week **Aim:** to introduce the Web 2.0 tools Wordle and Voki **Materials:** video tutorial on Moodle **Tasks:** Participants will create an avatar by using Voki and it will make a short speech introducing themselves. The Voki will be embedded on their blog. Participants will create a Wordle on any subject and display it on their blog.

Table 10

Description of Activities for Topic 9

Topic 9

Subject: Web 2.0 tool workshop

Time: 3 hours in class

Aim: to help ss discover Web 2.0 tools and think about how to integrate it into English language

Glogster .http://edu.glogster.com/http://www.teachertrainingvideos.com/glogster/index.html

VoiceThread . http://VoiceThread.com/ http://edte.ch/blog/2010/01/22/video-of-my-VoiceThread-presentation/

http://www.teachertrainingvideos.com/VoiceThread/index.html

http://www.teachertrainingvideos.com/englishCentral/index.html

Xtranormal http://www.xtranormal.com

Animato .http://animoto.com/

Wallwisher http://www.wallwisher.com/

http://www.teachertrainingvideos.com/wall/index.html

Materials: Wallwisher training video

Voicethread video

Tasks: to make a presentation in front of the class about a software

Table 11

Description of Activities for Topic 10

Topic 10
Subject: To enable participants to Integrate Web 2.0 into teaching English To enable participants to prepare a lesson plan for microteaching To use Web 2.0 tools for teaching English **Time**: a week **Aim:** to make students plan a lesson in which they integrate a Web 2.0 tool or software into their teaching **Materials:** the Internet **Tasks:** preparing a lesson plan Microteaching

3.6. Data Analysis

In this study mixed method research, which is a combination of qualitative and quantitative approaches, was used. Mixed method research focuses on collecting, analyzing and mixing both quantitative and qualitative data in order to better understand research problems (Cresswell & Plano Clark, 2007). Tashakkori and Tedlie (1998, as cited in Creswell, 2006) report that results from one method can help identify participants to study or questions to ask for the other method. Alternatively, the qualitative and quantitative data can be merged into one large database or the results used side by side to reinforce each other (e.g. qualitative quotes support statistical results: Creswell & Plano Clark, 2007 as cited in Creswell, 2006). In line with this view, the statistical data is supported with the results of the interview in this study. Thus, the data from this study are analyzed separately as being quantitative or qualitative.

3.6.1. Analysis of the Quantitative Data

Walliman (2006) states that quantitative analysis deals with numbers and uses mathematical operations to investigate the properties of data. The levels of measurement used in the collection of the data (i.e. nominal, ordinal, interval and ratio)

are an important factor for choosing the type of analysis that is applicable, as the number of cases involved.

As the quantive data for this study included a pre-test and post-test questionnaire for twenty seven participants, the two instruments, 'Computer Technologies Survey' and 'ICT Can do Cheklist' was analyzed through SPSS. In this study Wilcoxon Signed Ranks Test for Matched pairs was chosen as the two related samples test to identify the significant difference or association between the 'ICT Can do Checklist' pretest and post test and ' Computer Technology Survey'. Because these two pairs of tests are related to each other in one way or another. This comparison of two checklists and two likert scales was organized in ten different combinations of matches. The arithmetical average of the results was taken for the data analysis.Wilcoxon Signed Ranks Test is the alternative non-parametric method of paired sample t-test. When the normality assumption is not satisfied or the sample size is too small, T-test is not valid ("Nonparametric Test"). The Wilcoxon Signed Ranks test does not require the assumption that the population is normally distributed ("Wilcoxon").

3.6.2. Analysis of the Qualitative Data

Qualitative research does not involve counting and dealing with numbers, but is based more on information expressed in words-descriptions, accounts, opinions, feelings, etc. The researcher analysed the data from the interview through content analysis. Creswell (2006) states that content analysis usually refers to analyzing text (interview transcripts, diaries, or diaries, or documents) rather than observation-based field notes. She put the emerging themes under different categories. She coded the categories according to the most prevalent ideas from each question. She discussed the emerging themes with support from the quantitative data. Creswell (2006) mentions that coding helps to organize piles of data (in the form of notes, observations, transcripts, documents, etc.) and provides a first step in conceptualization. The process of coding is analytical, and requires the researcher to review, select, interpret and summarize the information without distorting it.

CHAPTER IV

FINDINGS

4.1. Introduction

In this chapter the qualitative and quantitative results of the study are summarized.

The data collected from the data measurement tools were subjected to a number of statistical analyses in order to explore, describe and interpret results from the entire sample. Firstly, the participants' background information and then their responses to the 'Computer Technologies Survey', which is composed of the sub categories 'Attitudes Towards Computer Technologies' (ACT) and 'Self Efficacy for Computer Technologies', (SCT) is given. The percentage of the responses to specific items is reflected. The pretest and posttest results are given separately. Then the responses to the second data collection tool 'ICT Can do List', which is a checklist of computer technologies for English Language teachers, is shared as a pretest and posttest separately, too. The qualitative data gathered from the interviews was analyzed and reported extensively for exploring the key points and ideas of the preservice English Language Teachers.

4.2. Research Question 1: What is the Attitude of Preservice English Teachers Towards Computer Technologies?

The first part of the instrument 'Computer Technologies Survey' was used in this study to get the response to this research question. As stated before, this instrument aimed at measuring and determining the attitudes and self-efficacy of preservice teachers. The survey instrument was used as an assessment tool in an instructional program that was aimed at enhancing both the general computer literacy levels and introducing students to explore the use of specific media in their connection to teaching and learning (Kinzie & Delcourt, 1991 in Logue, 2007).

'Computer Technologies Survey' consisted of two parts; Attitudes toward Computer Technologies (ACT) which includes 19 items to measure an individual's

attitudes toward the use of computer technologies and Self-Efficacy for Computer Technologies (SCT) which included 47 statements about individual's confidence with computer technologies. For this research question, the first part of the instrument, 'Attitudes toward Computer Technologies' (ACT) was used to explore what preservice teachers thought about the usefulness of computer technologies in general and whether they were anxious or not about using them. Besides, ACT scale contains 19 items, which consists of two subscales: 11 items that measured usefulness (for example, "Computer technologies can be used to assist me in organizing my work.") and 8 items that measured comfort/anxiety (for example,"I feel comfortable about my ability to work with computer technologies.") (Logue, 2007). This instrument was given to the participants before and after the treatment in a class by the researcher and the participants were allocated 25 minutes to answer 66 items on the 'Computer Technology Survey'.

The findings from the pretest ATC will be used to answer the 1st research question to answer the 1st research question 'What is the attitude of preservice English teachers towards computer technologies? All items and participants' answers are displayed in Table 3. This data, which is gathered from the interview, has been found to have some common points regarding the respondents' answers to the first part of the ACT, which is about the usefulness of computer technologies. For example, participant 11 (P 11) supports his/her response to item 7, which says: 'With the use of computer technologies, I can create materials to enhance my performance on the job' by saying: 'Computer Technologies are very useful for me while preparing materials for my classes' in the interview.

In addition to the results of item 16 that 'Computer Technologies can be used to assist me in organizing my work', P 19 says : ' We do not carry packages of materials, so when you put materials into a flash drive, you can carry lots of things to the class.'

As regards to the results of the ACT pretest in Table 12, 66.7 % of the preservice English teachers declare that they use Computer Technologies on a daily basis for different purposes. For example, 55.6 % the participants agree on the statement which declares that using the computer technologies to communicate with others over a network can help them be more effective professionally. In addition, 55.6 % of the participants report that using computer technologies in their courses would not mean extra work. That means, more than half of the participants are eager to use computer technologies as they think they are useful in language teaching. However, it is also

inferred from the results that nearly half of the participants are confident about their skills in using computer technologies while having a course which requires them to use computer technologies. 14.8 % of the participants declared that they are not sure if they do well in such a course and more than half of the participants, 55.6 %, do not think that using computer technologies will mean more work for them. In addition, 66.7 % of them think that Computer Technologies (CT) will be useful to them in their profession and same amount of participants also think that if they can use word processing software, they will be more productive. However, nearly half of the participants (48.1 %) of the participants believe that anything computer technologies can be used for, they can do just as well the some other way.

As it was stated before the 8 items in ACT were about 'comfort anxiety' on using computer technologies. According to the responses the participants gave for these items it can be concluded that more than half of them (55.6 %) feel at ease learning about computers and 63 % are not afraid of the thought of using computer technologies. In addition, 63 % of them 'disagree' with the statement 'I am anxious about computers because I don't know what to do if something goes wrong.'

4.3. Research Question 2: Is There Any Change in the Attitudes of Preservice English Teachers Towards Computers After Having Followed An Online Educational Technology Course?

The attitudes of preservice English language teachers showed a positive tendency towards computer technologies before the online course. They stated that language teaching will be better by using computer technologies and they also state that they can fix if problems occur while using it. As discussed before, the participants had taken some courses in which they had the chance to learn and use technological tools, software and web tools prior to taking this online educational technology course. When the findings from the ACT scale are generally evaluated, it can be said that the attitudes of the participants which were already positive showed a decrease after the treatment. To clarify this it will be beneficial to have a look at the items in a more detailed way. As it was declared in the first research question, ACT consisted of two subscales: usefulness and comfort anxiety. The items about 'comfort anxiety are items 3, 6, 8, 11, 12, 14, 15 and 18' in Table 12. Rest of the items are about 'usefulness'.

The findings from the items on the 'usefulness' part show a slight increase. For example, the amount of participants who 'Strongly Agree' with item 2 'Using CT to communicate with other over a network can help me to be more effective in my job' increased from 44.4 % to 55.6 % and similarly the amount of participants who 'Disagree' with the item 'Using CT in my job will only mean more work for me' increased from 55.6 % to 59.3 %. These changes can be considered as a slight increase in the attitudes of the participants on the 'usefulness' of computer technologies.

When it comes to their attitudes on the 'comfort anxiety' of using computer technologies, a slight decrease is observed in the participants' attitudes. For example, the amount of participants who agreed that they are confident about their abilities to do well in a course that requires them to use computer technologies increased from 48.1 % to 55.6 % and more than half of the participants (55.6 %) 'Strongly agree' that they feel at ease learning about computer technologies, the amount of participants for the same item was 33.3 %. Generally participants' ideas about these items are similar in the pretest and the post test, only some participants changed their responses from 'strongly agree' to 'agree' or 'strongly disagree' to 'disagree'. This creates a slight difference in the percentages, but it does not give us the impression that there is a change in terms of the English preservice teachers' attitudes on the use of computer technologies. The responses are given in Table 12 below.

Table 12

Participants' responses to items on Attitudes towards Computer Technologies (ACT)

Item no	Item	Strongly Disagree %		Disagree %		Not sure %		Agree %		Strongly Agree %	
		pre	post	pre	post	pre	post	pre	post	pre	post
1	I don't have any use for CT on a day-to-day basis.	66.7	**66.7**	29.6	**25.9**	3.7	**3.7**	0	**3.7**	0	**0**
2	Using CT to communicate with others over a network can help me to be more effective in my job.	0	**0**	0	**0**	0	**0**	55.6	**44.4**	44.4	**55.6**
3	I am confident about my ability to do well in a course that requires me to use *CT	0	**0**	0	**0**	14.8	**7.4**	48.1	**55.6**	37.0	**37.0**
4	Using CT in my job will only mean more	25.9	**7.4**	55.6	**59.3**	11.1	**11.1**	0	**3.7**	7.4	**8.5**

(Table 12 To be Contunied)

	work for me.										
5	I do not think that CT will be useful to me in my profession	66.7	**51.9**	18.5	**37.0**	0	**0**	7.4	**0**	7.4	**11.1**
6	I feel at ease learning about CT	3.7	**0**	0	**0**	7.4	**3.7**	55.6	**40.7**	33.3	**55.6**
7	With the use of CT, I can create materials to enhance my performance on the job	0	**0**	0	**0**	0	**3.7**	48.1	**40.7**	51.9	**55.6**
8	I am not the type to do well with CT	40.7	**48.1**	55.6	**51.9**	0	**0**	0	**0**	3.7	**0**
9	If I can use word processing software, I will be more productive	3.7	**0**	0	**0**	14.8	**0**	66.7	**66.7**	14.8	**33.3**
10	Anything that CT can be used for, I can do just as well the some other way	3.7	**7.4**	25.9	**7.4**	11.1	**14.8**	48.1	**51.9**	11.1	**18.5**
11	The thought of using CT frightens me.	63.0	**37.0**	25.9	**59.3**	7.4	**0**	3.7	**3.7**	0	**0**
12	CT are confusing to me	44.4	**33.3**	48.1	**48.1**	0	**11.1**	7.4	**3.7**	0	**3.7**
13	I could use CT to access many types of information for my work.	0	**3.7**	0	**0**	0	**0**	40.7	**59.3**	59.3	**37.0**
14	I do not feel threatened by the impact of CT	0	**7.4**	3.7	**0**	7.4	**0**	40.7	**66.7**	48.1	**25.9**
15	I am anxious about computers because I don't know what to do if something goes wrong.	22.2	**29.6**	63.0	**48.1**	11.1	**18.5**	3.7	**3.7**	0	**0**
16	CT can be used to assist me in organizing my work.	0	**0**	3.7	**0**	3.7	**3.7**	37.0	**48.1**	55.6	**48.1**
17	I don't see how I can use CT to learn new skills.	40.7	**33.3**	48.1	**59.3**	3.7	**3.7**	7.4	**0**	0	**3.7**
18	I feel comfortable about my ability to work with CT	3.7	**0**	3.7	**3.7**	7.4	**11.1**	44.4	**40.7**	40.7	**44.4**
19	Knowing how to use CT will not be helpful in my future work	66.7	**37.0**	22.2	**33.3**	0	**3.7**	0	**3.7**	11.1	**22.2**

*CT: Computer Technologies

The difference between the pretest and posttest responses of the preservice teachers on the ACT questionnaire can also be observed in Table 4. In this table, the Wilcoxon Signed Ranks Test results are shared. This table compares the total scores of

each participant for their pretest and posttest ACT scores. On the graph a general decrease in the total scores of participants ACT posttest is observed.

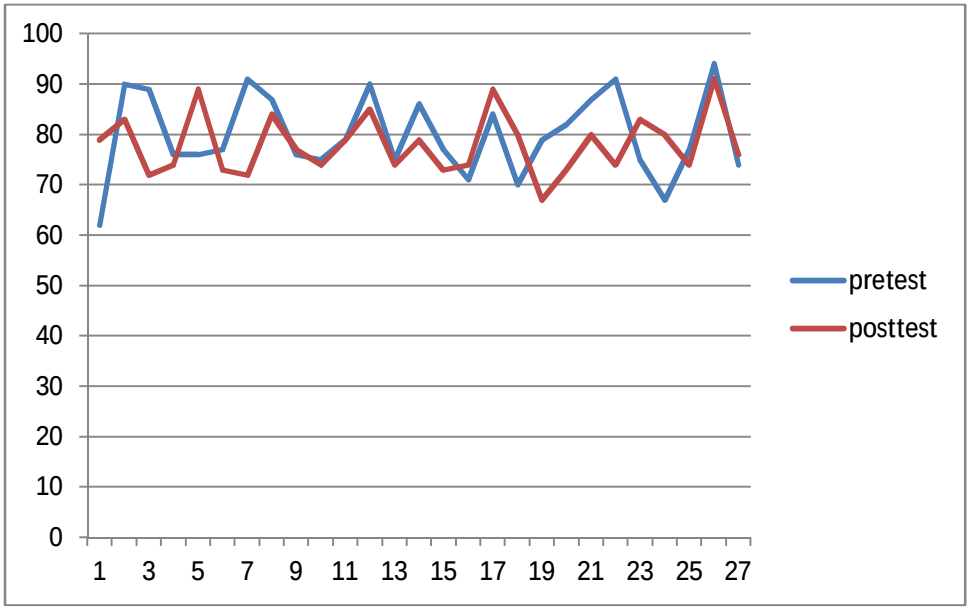


Figure 27. The pretest and posttest total scores for ACT

As illustrated in Figure 27, preservice teachers do not show a significant change in terms of their attitudes towards computer technologies after having dealt with computer technologies throughout some guided activities throughout the treatment.

Table 13

Wilcoxon Signed Ranks Test for Attitudes Towards Computers

Pretest	Posttest	N	Mean Rank	Sum of Ranks	Z	P
Negative Ranks		17	13.03	221.50	-1,170	*.242
Positive Ranks		9	14.39	128.50		
Ties		1				
TOTAL		27				

A Wilcoxon Signed Ranks Test was conducted to evaluate whether the attitudes showed a significant difference for pre-test or post-test results. The results did not indicate a significant difference, $z = -1.170$, $p > .05$. The mean of the ranks in favor of the post-test was 14.39, while the mean of the ranks in favor of the pre-test was 13.03.

That is, the results do not indicate significant differential attitude change for post-test results versus pre-test results.

4.4. Research Question 3: How Do The Preservice English Teachers View Themselves About Using Computers?

The second part of the Computer Technologies Survey 'Self Efficacy for Computer Technologies' was used to get the answer for this research question. This tool portrays the level of confidence for using computer technologies. In this study, the participants' confidence in using operating systems, the Internet, e-mail, word processor, spreadsheets and database management is focused on. The pretest results can be seen in Figure 28 below.

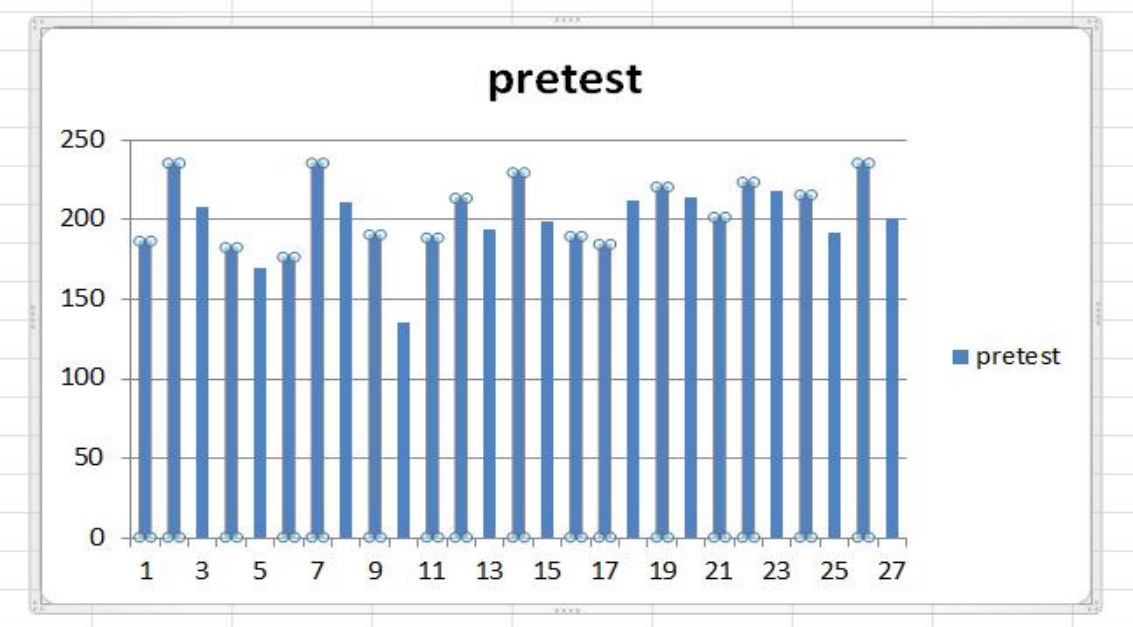


Figure 28. The Bar chart showing the pretest results of the Self-Efficacy toward Computer Technologies (SCT).

According to the pretest results, one can come to the conclusion that participants generally have confidence in using computer technologies listed above. The highest score they can get from this survey is 235 and there are only 3 out of 27 participants who could get this score before the treatment. That means, most of the participants lack confidence in using some computer technologies. To discover this, the survey items

were studied for individual participants. The scores 3: not sure 2: disagree and 1: strongly disagree are counted as negative responses for the confidence items.

The items are:

1. I feel confident accessing previous files with a Word processing program.
2. I feel confident conducting a search for Internet resources.
3. I feel confident copying an individual file.
4. I feel confident decoding a file which has been downloaded from the Internet.
5. I feel confident deleting messages received on e-mail.
6. I feel confident downloading a file from the Internet.
7. I feel confident editing previous spreadsheet files.
8. I feel confident entering appropriate formulas for calculations on a spreadsheet.
9. I feel confident entering data in a spreadsheet.
10. I feel confident entering records in a database.
11. I feel confident finding a file that I need.
12. I feel confident fomatting data fields in a database.
13. I feel confident formatting text (e.g., bold, underlining) while Word processing.
14. I feel confident formatting the columns and rows in a spreadsheet.
15. I feel confident forwarding messages received on e-mail.
16. I feel confident getting rid of files when they are no longer needed.
17. I feel confident getting software up and running.
18. I feel confident handling a flash drive correctly.
19. I feel confident installing a new program.
20. I feel confident logging on to e-mail.
21. I feel confident logging off from e-mail.
22. I feel confident making printed copy of a web page.
23. I feel confident making corrections while Word processing.
24. I feel confident moving blocks of text while Word processing.
25. I feel confident naming data fields in a database.
26. I feel confident naming the columns and rows in a spreadsheet.
27. I feel confident organizing and managing files.
28. I feel confident printing out files I’ve written while Word processing.
29. I feel confident printing out records in a database.
30. I feel confident printing out the spreadsheet.
31. I feel confident reading mail messages on e-mail.
32. I feel confident recording an Internet site so that I can find it again.
33. I feel confident renaming a Word processing file to make a back-up copy.
34. I feel confident responding to messages on e-mail.
35. I feel confident responding privately to messages sent to more than one person on e-mail.
36. I feel confident saving a spreadsheet file.
37. I feel confident saving database files.
38. I feel confident saving documents I’ve written with a Word-processing program.
39. I feel confident searching records in a database with specific items.
40. I feel confident sending mail messages on e-mail.

41. I feel confident sending the same mail message to more than one person on e-mail.
42. I feel confident sorting records in a database.
43. I feel confident using a browser to view sites on the Internet.
44. I feel confident using a printed address to locate an Internet site.
45. I feel confident using a Word-processing program to write a letter or a report.
46. I feel confident using the searching feature in a Word processing program.
47. I feel confident using the spell checkeer while Word processing.

Above the list of the items on the Self Efficacy for Computer Technologies (SCT) is displayed. This list includes items on the participants' computer literacy, their knowledge, ability to use the Microsoft Office programs, software and the e-mail. That is, they are all about the technical skills of the preservice English language teachers.

In the treatment of the study, the online educational technology course, the researcher did not have a computer literacy component in which she taught how to use Word, Excel, etc. Instead the course itself required the use of some Office programs like Word or sending e-mails, receiving e-mails, using the browser, using the printed address to locate an Internet site, saving copies of documents, etc. However, the treatment did not include any information on how to use database or excel or required the use of them for a task within the course. As this questionnarie was prepared to find out on all computer skills of the participants, these items were included by the original creators and they were kept to see if some of the participants had any experience about them. Within the light of this information and the items listed above the participants' responses are given.

To start with, nearly all participants use Microsoft Word comfortably. Except for one participant, all participants can format a text (e.g bold, underlining) and they can make corrections. 24 participants out of 27 feel confident moving blocks of a text. Besides, all participants believe they can print out files they have written while using MS Word. 24 participants feel confident renaming a file to make a back-up copy. Except for one participant, all participants feel confident about saving documents they have written. 24 participants state that they can use MS Word to write a letter or a report and believe they can use the searching feature in MS Word. 25 of the participants also feel confident using the spell checker.

In addition, they can copy an individual file except for 4 participants. When it comes to decoding files which have been downloaded from the Internet, some preservice teachers reveal that they have problems and few preservice teachers have

about downloading a file from the Internet. Only 2 out of 27 participants do not feel confident getting software up and running. Moreover, they feel confident handling a flash drive correctly. Apart from 3 participants who are not sure about their skills in installing a new program, others state that they can do it properly.

7 participants out of 27 do not feel confident editing previous Microsoft Excel files and nearly the same number of participants could not enter formulas for calculations in a spreadsheet. Again the same numbers of participants do not feel comfortable formatting the columns and rows in Ms Excel. In addition, 23 participants feel confident about naming the columns and rows in an Excel file. Only three mention that they cannot print out records in MS Excel. Lastly, 26 participants feel confident saving an Excel file.

4 out of 27 declare that they do not feel confident about finding a file that they need. Again the same numbers of participants do not feel confident about deleting files when they are no longer needed. Nearly all participants also believe they can organize and manage files.

The second most used item about computer technologies by these participants is the Internet**.** Apart from 2, all participants feel confident about making a printed copy of a web page. Nearly all participants can record an Internet site so that they can find it again. 22 participants feel confident about using a browser to view sites on the Internet and 21 believe they can use a printed address to locate an Internet site.

The participants can send and receive emails without any problems, but few of them (2 out of 27) have problems with deleting email messages. Apart from one participant, they all feel confident forwarding messages received on e-mail. They also feel confident when logging on and logging off from e-mail. Only 3 participants out of 27 do not feel confident reading mail messages on e-mail. Apart from 4 participants, all participants feel confident when responding to messages on e–mail. They believe they can respond privately to messages sent to more than one person on e-mail. Apart from a participant who is not sure, all participants believe they can send mail messages on e-mail. In addition, they all believe that they can send the same mail message to more than one person on e-mail.

4.5. Research Question 4: Is There Any Change In The Computer Self-Efficacy Perceptions of Preservice English Teachers' Towards Computers After Having Followed An Online Educational Technology Course?

When the pretest and posttest scores are compared, it will be seen that the scores of 13 preservice teachers increased, 3 remained the same and the scores of 11 participants decreased. The participants getting the highest score (235) increased to 4. The continuous exposure to computer technologies throughout the treatment (learning about Web 2.0 tools and software, preparing projects for the other lessons by using technology and searching for information on the Internet for assignments) might have made them more confident about their skills on computer technologies. As all participants were classmates sometimes they taught each other about how to do something on the computer.

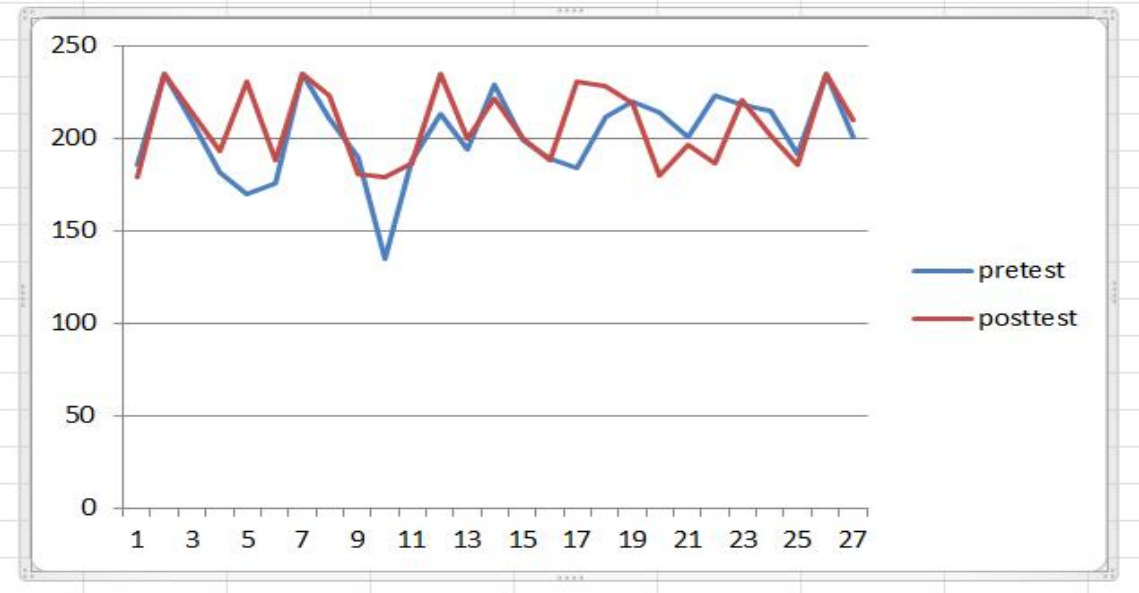


Figure 29. Total scores of participants for the Self-Efficacy toward Computer Technologies (SCT).

Figure 29 illustrates the difference between the total scores for the SCT as pretest and posttest. Although for some participants the total scores of pretest and posttest are similar (P1, P2, P3), few show a great difference (P10, P18).

Table 14

Wilcoxon Signed Ranks Test for Self-efficacy toward Computer Technologies

Pretest	Posttest	N	Mean Rank	Sum of Ranks	Z	P
Negative Ranks		11	10.32	113.500	-1,044	*.297
Positive Ranks		13	14.35	186.500		
Ties		3				
TOTAL		27				

A Wilcoxon Signed Ranks Test was conducted to evaluate whether the self-efficacy of participants showed difference for pre-test or post-test results. The results did not indicate a significant difference, z = -1.044, p >.05. The mean of the ranks in favor of post-test was 10.32, while the mean of the ranks in favor of pre-test was 14.35. That is, the results do not indicate significant differential attitude change for post-test results versus pre-test results.

The items about the confidence in the Self –efficacy toward Computer Technologies questionnaire are grouped under the specific categories (for ex, wordprocessors, the internet) for a general analysis. The pretest and posttest results are compared and the comments are written below.

Word processors: The participants of the study were generally found out to have confidence in using the word processors when the pretest scores are considered. The results of the posttest also show the same. There is a slight increase in the confidence of participants in using the spell checker or renaming a file or moving blocks of text while using Ms Word.

Using Word processors is a must for these preservice English language teachers while preparing projects for their courses beginning at the 1st year at the department. Considering the background of the participants, it is quite normal for them to have the necessary skill to use word processors. The Moodle course did not include specific information about how to use word processors; however participants had to use word processors at their department where they were studying.

The Internet**:** When it comes to confidence in the use of the Internet, slight increases in the scores of participants can be observed. For example, before the treatment, 22 participants felt confident about using a browser to view sites on the Internet. After the treatment 4 participants were added to this number. While 21

participants believed they can use a printed address to locate an Internet site, this number increased to 24 after the treatment.

In the Moodle course, at the very first week the researcher wanted to make sure they know about the technological terms used. For this she created a forum in which she asked the participants to provide a link which included the technological terms. This was also designed to make them aware of the various sources where they could access the definitions of the technological terms which they do not know throughout the treatment. The researcher also provided them with some information about the extensions of the websites like 'doc., jpg,' etc. In addition, they were also provided some awareness raising activities about using ELT websites. For this, they were given a Language Learning Website Evaluation form (Appendix E) and they were asked to evaluate the language learning websites given.

As can be seen in Figure 30**,** the participants were also provided with some articles on 'how to make a Google Search', 'How to write a professional e-mail'. The researcher also wanted them to use the internet for their professional development for the future and introduced them the website 'www.tappedin.org', which is a virtual campus where they can have offices and share with other teachers. In the Moodle course there was an article about this virtual campus for teachers. The last article the researcher wanted them to read was about the use of Facebook.

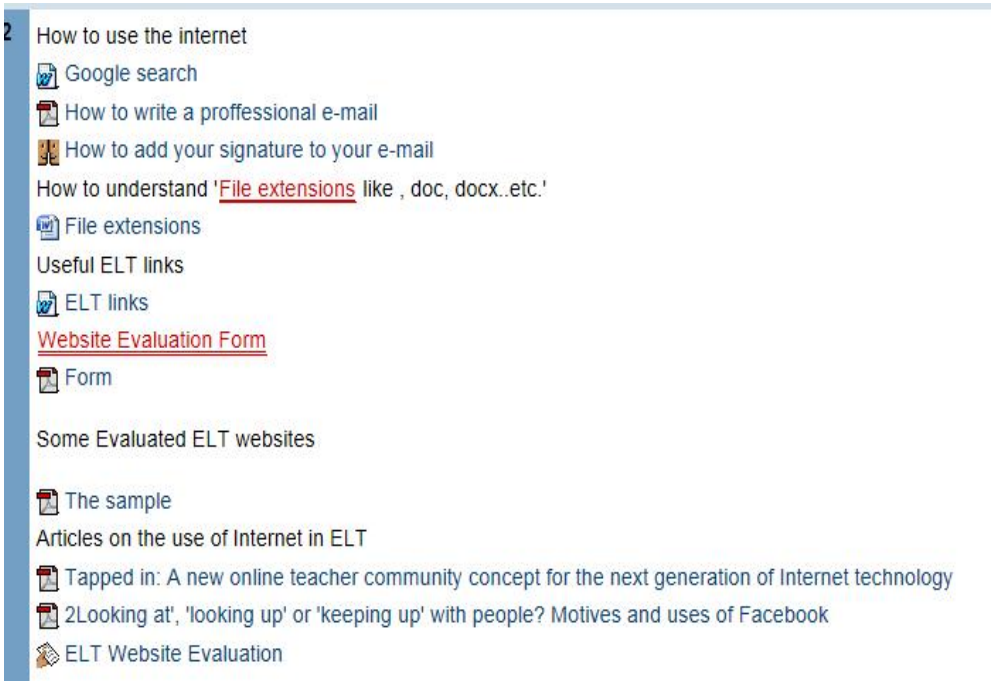


Figure 30. A screenshot from the Online Educational Technology Course

Operating systems**:** The participants state that they can use the operating systems appropriately. The score for the item on confidence in getting software up and running is the same. In the posttest, the number of the participants feeling confident in deleting files when they are no longer needed increased from 23 to 27. That is, after the treatment all of them have confidence about this item.

Throughout the online educational technology course on Moodle, the participants had to deal with the software like 'Audacity' to record their voices for creating a podcast or web 2.0 tools like Voki, Wordle, and Voicethread. To complete their tasks about these software and Web 2.0 they had to upload and run some programs. In fact, they already had some information about how to install programs on their computers, but throughout the online technology course they had to do this more often than they used to. This might have enhanced their skills in using the operating systems and they might have started to feel more confident in their skills.

E-mail**:** After treatment, it is seen that all participants had self-confidence for their ability in deleting e-mail messages, that is, 2 participants gained confidence in this item . Similarly, the number of participants who had confidence in reading messages on e-mail increased from 24 to 27 after the treatment. This might have been the result of the researchers' using e-mail for communication with the participants. They had to communicate with the teacher throughout e-mail sometimes twice a day. The online educational technology course had only one item about the use of the e-mail and it was about writing a professional e-mail which was aimed at teaching them how to communicate with people when they graduate. This did not include information like how to answer the e-mail or how to send the same mail message to more than one person one e-mail.

4.6. Research Question 5: What is the Level of Preservice English Teachers In Terms of Computer Literacy?

English teachers who would like to integrate ICT in their teaching need to be familiar with the Windows operating system and a range of different software applications. Because of this reason, the preservice English teachers in this study were asked about their ability in using operating systems and various applications which are useful in language teaching.

With this purpose in mind, the literacy of the preservice English teachers is explored with the 'ICT can do lists for teachers of foreign languages', which is a checklist compiled by Davies (2006). The participants indicated their level of knowledge for different items by marking a scale ranging from 1 to 3, (1: Basic, 2: Intermediate, 3: Advanced) and they are asked about their abilities in each technological item in detail under each section by ticking a box if they 'can do' the written skill or leaving blank if they 'do not know'.

The main headings in this list were :Windows, Word, Browsers, E-mail software, Power Point, Anti-virus and security software, CALL authoring software, CD-ROMs and DVDs, CD-Audio discs, DVD-Video discs, Image editing software, Audio recording and editing software, Video recording and editing software, Reference tools (electronic dictionaries and encyclopedias) , Using a VLE (Moodle, Discussion lists, blogs, wikis, social networking) and Understanding Copyright.

For example, for the heading 'Windows', there were some items asking the participants if they can: use a mouse and know when to right-click or left click, use a Windows Menu Bar, minimize a window, maximize a window, restore a window, create a folder, etc.

For 'Word' heading participants were asked if they could start Word, set paper size and margins, insert new text, make hidden formatting characters visible or invisible, make text bold, italic or underlined, create a table within a document, do a spell check and use the thesaurus, and similar things which require some detailed skills on how to use Word.

For 'Browsers' participants were asked if they can print a web page, if they can download a document file from a website, if they can get back to a previously locates website, if they can understand the advantages and limitations of the World Wide Web as a medium for delivering language courses, if they understand the implications of copyright and plagiarism when using materials downloaded from the Web, etc.

The following headings after Windows, Word and Browsers are also detailed and ask if the participants can do some specific activity by using the 'heading' and if they understand some essential things about the use of that 'heading'. (See Appendix B)

For the main item (which is the first question for each section in ICT can do checklist) participants evaluated their knowledge from 1 to 3 as described above. Under these headings, there were related sub items on which the participants marked their skill about doing the task with a tick as shown in the Table 15 below:

Table 15

Sample part from the 'ICT can do ' Checklist

I would describe my ability to use discussion lists, blogs, wikis and social networking sites as (1-3) (MAIN ITEM)	
Now indicate what you can do: tick for "yes", leave blank for "no". I can:	
Write a contribution to a blog	(SUB ITEM)
Write a contribution to a wiki	(SUB ITEM)
Upload a photo to a blog	(SUB ITEM)
Upload a photo to a wiki	(SUB ITEM)

As shown in Table 15, ICT checklist include Main items which are scored from 1-3 and Sub items which include the details of the Main item and respondents as 'yes' or 'no'. To explain more clearly, the specific responses for these main headings will be discussed.

Windows**:** The participants in the study are intermediate (4) or advanced (23) users of Windows. Apart from 3, all participants are advanced in using Word. The participants can use the browsers (4 intermediate, 23 advanced) and apart from two participants who are basic users of e-mail software, the others are all intermediate (10) while the others are all advanced (15) users of e-mail software. When it comes to the Power Point, only three participants are intermediate, others are all advanced. 11 users are basic, 7 users are intermediate and 9 are advanced in the use of anti-virus and security software. 11 users are basic in terms of CALL authoring and software, 8 are intermediate and 8 are advanced. Apart from 1 basic user, all participants are advanced users of CD-ROMs and DVDs. 1 participant is basic, 5 are intermediate and 21 are advanced users of CD-Audio discs. Apart from 2 basic users, 7 users are intermediate, 18 users can use DVD-Video discs in an advanced manner. 12 users are intermediate, 15 users are intermediate in using image-editing software. 5 participants are basic, 7 users are intermediate and 15 participants are advanced in 'Audio recording and editing software'. Apart from 2 basic users of 'Video recording and editing software', 9 are intermediate and 16 are advanced. When it comes to Reference tools, 5 participants are intermediate and 22 are advanced in electronic dictionaries and 8 users are basic in the use of encyclopedias. In addition, 11 users are intermediate and 8 participants are advanced users of 'VLE: Moodle'. 6 users are basic, 8 users are intermediate and 13 are

advanced in using ‘Discussion lists, blogs, wikis, social networking’. When it comes to copyright 14 participants are basic, 6 are intermediate and 7 are advanced in ‘Understanding copyright’.

4.7. Research Question 6: Is There any Change In The Computer Literacy of Preservice English Teachers’ After Having Followed An Online Educational Technology Course?

Throughout the online educational technology course, the preservice teachers went through a program which included the introduction to new Web 2.0 tools, e-mail writing, and blog posting and watching online tutorials. The ‘ICT can do’ checklist, prepared by Davies (2006), was used to see whether they learned some new things throughout the treatment. To see if there is any change in the computer literacy of the participants after the treatment, the checklist was administered as pre and posttest.

A Wilcoxon Signed Ranks Test was conducted to evaluate whether the computer literacy of participants showed difference for pre-test or post-test results. This was applied to all main items: Windows, Word, Browsers, E-mail, Powerpoint, Antivirus programs, Call Software, CDroms and DVDs, CD and Audio Discs, DVD and Audio Discs, Image Editing Software, Audio Recording, Video Recording, Reference Tools, Moodle, Discussion Lists and Blogs, Understanding Copyrights. As stated before for these items the participants evaluated their level of knowledge under each heading as 1=Basic, 2=Intermediate and 3=Advanced. The researcher compared the participants’ responses to the Main items through Wilcoxon Signed Ranks Test.

Windows: The results did not indicate a significant difference, $z = -816$, $p > .05$. That is, the results do not indicate significant differential literacy change for post-test results versus pre-test results.

Word: The results did not indicate a significant difference, $z = -1{,}000$, $p > .05$. That is, the results do not indicate significant differential literacy change for post-test results versus pre-test results.

Browsers: The results did not indicate a significant difference, $z = .000$ $p > .05$. That is, the results do not indicate significant differential literacy change for post-test results versus pre-test results.

E-mail: The results indicated a significant difference, z = -2,111 p <.05. That is, the results indicate a significant differential literacy change for post-test results versus pre-test results.

Powerpoint: The results indicated a significant difference, z = -1,732 p <.05. That is, the results indicate a significant differential literacy change for post-test results versus pre-test results.

Anti-virus : The results indicated a significant difference, z = -2,066 p <.05. That is, the results indicate a significant differential literacy change for post-test results versus pre-test results.

Call Software: The results indicated a significant difference, z = -2,990 p <.05. That is, the results indicate a significant differential literacy change for post-test results versus pre-test results.

CDRoms and DVDs: The results did not indicate a significant difference,

z =-1,414, p >.05. That is, the results do not indicate significant differential literacy change for post-test results versus pre-test results.

CD Audio Discs: The results did not indicate a significant difference,

z =-1,134, p >.05. That is, the results do not indicate significant differential literacy change for post-test results versus pre-test results.

DVD and Audio Discs: The results did not indicate a significant difference,

z =-1,540, p >.05. That is, the results do not indicate significant differential literacy change for post-test results versus pre-test results.

Image Editing Software: The results indicated a significant difference, z = -2,714 p <.05. That is, the results indicate a significant differential literacy change for post-test results versus pre-test results.

Audio Recording: The results indicated a significant difference, z = -2,762 p <.05. That is, the results indicate a significant differential literacy change for post-test results versus pre-test results.

Video Recording: The results indicated a significant difference, z = -2,714 p <.05. That is, the results indicate a significant differential literacy change for post-test results versus pre-test results.

Reference Tools: The results did not indicate a significant difference, z =-1,414 p >.05. That is, the results do not indicate significant differential literacy change for post-test results versus pre-test results.

Moodle : The results indicated a significant difference, z = -3,344 p <.05. That is, the results indicate a significant differential literacy change for post-test results versus pre-test results.

Discussion lists, blogs: The results indicated a significant difference, z = -3,314 p <.05. That is, the results indicate a significant differential literacy change for post-test results versus pre-test results.

Understanding Copyrights: The results indicated a significant difference, z : -1,474 p <.05. That is, the results indicate a significant differential literacy change for post-test results versus pre-test results.

The researcher also administered Wilcoxon Signed Ranks test to see if there is a difference between the pre and posttest as can be seen in Table 16.

Table 16

The Wilcoxon Signed Ranks Test results of the 'ICT can do checklist' for Sub items

Pretest	Posttest	N	Mean Rank	Sum of Ranks	Z	P
Negative Ranks		5	3.80	19	-3,975	*.000
Positive Ranks		21	15.81	332		
Ties		1				
TOTAL		27				

A Wilcoxon Signed Ranks Test was conducted to evaluate whether the computer literacy of participants showed significant difference for pre-test or post-test results in terms of sub items. The results indicated a significant difference, z = -3,975 p < .01. The mean of the ranks in favor of post-test was 3.80, while the mean of the ranks in favor of pre-test was 15.81. That is, the results indicate a significant differential computer literacy change for post-test results versus pre-test results in terms of sub items. This can also be observed from Table 14 below

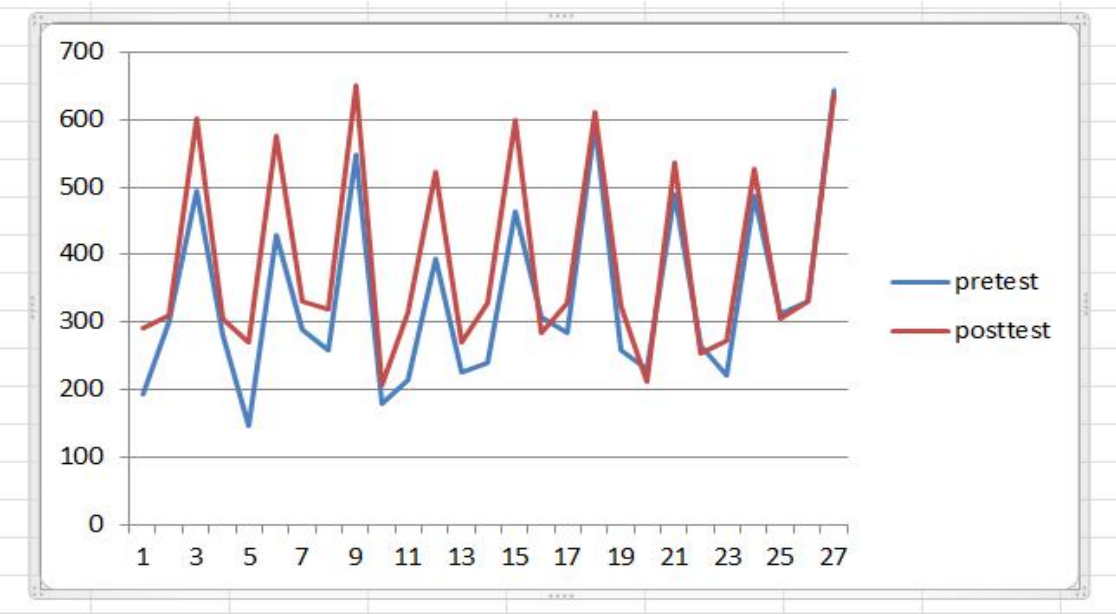


Figure 31. Total Scores from 'ICT can do checklist' for sub items.

The line graph in Figure 31 also shows the difference between the pre and post test results of the participants for their main items. The overall higher scores may mean that the treatment had a positive effect as regards to their computer literacy Figure 31 shows us a clear difference between the pretest and the posttest scores for computer literacy main items. Although there are fluctuations in both tests, it is observable that the post test scores are mostly higher than the pretest scores. To understand if this is statistically meaningful, Table 17 may be examined.

Table 17

Wilcoxon Signed Ranks Test for 'ICT can do checklist'for main items

Pretest	Posttest	N	Mean Rank	Sum of Ranks	Z	P
Negative Ranks		3	8.00	24	-3,854	*.000
Positive Ranks		23	14,22	327		
Ties		1				
TOTAL		27				

A Wilcoxon Signed Ranks Test was conducted to evaluate whether the computer litearcy of the preservice teachers showed significant difference for pre-test or post-test results as with regards to the main items in the checklist. The results indicated a

significant difference, $z = -3.854$, $p < .01$. The mean of the ranks in favor of the post-test was 14.22, while the mean of the ranks in favor of the pre-test was 8.00. That is, the results indicate significant differential literacy change for post-test results versus pre-test results.

According to the Wilcoxon signed ranks test, 23 out of 27 preservice teachers had an inrease in their grades on computer literacy for main items, 3 of them had a decrease in their grades after the treatment and 1 preservice teacher remained the same.

4.8. Research Question 7: What are the Preservice Teachers' Perceptions of the Use of Technology For Learning And Teaching English?

In any kind of technology integration in a class, what teachers believe is very important. If they believe that using technology will be useful for their students and if they believe they can use it successfully, they use it. Therefore, in any kind of technology integration, the perceptions of teachers should be considered as an important topic to find out at the beginning. As this study included preservice teachers only, the researcher asked them about their ideas about the use of technology in teaching English in the future. This was only asked after the treatment considering that they will be teachers in seven months during the time of the study.

To answer the research question 'What are the preservice teachers' perceptions of the use of technology for learning and teaching English?' the interview questions below were used:

1. What do you think about using technology for teaching and learning English?
2. What was difficult (problematic) for you about the online educational technology course?
3. Are you planning to use some of this software when you become a teacher? Why/ why not?

The responses to this open ended research question are categorized under the themes that emerged from the interviews. Generally the preservice teachers talked about why they wanted to use technology for learning and teaching English by saying that 'it is useful' or 'beneficial'in most cases. The researcher compiled their explanations under five different categories and one of the categories is about the drawbacks of using technology. Although they believe that it fosters learning and teaching English, some of

the preservice teachers are worried about having a school with no technological equipment or internet connection.

4.8.1. Theme 1: Being A Teacher of The Digital Natives

This is the most repeated theme when the responses of the participants are examined in detail. The preservice teachers are aware of the fact that they are going to teach English to the 'Digital Natives' as Prensky (2001) calls them. Generally they want to learn and use technology to keep up with the time and satisfy the needs of their learners. Quotations from student interviews:

> 'It is a technological era and we have to advance ourselves. Children are interested in technology and using materials.'
> 'Using technology is something up to date and it is important because our students are also growing… technology is growing fast and students follow this improvement.'
> 'We live in a technological age, as a teacher I should know something for my students.'
> 'It is useful because we are in the era of technology, especially educational technology has improved.'
> 'Technology is useful because all children now want to use technology and they are fond of technology, they go to internet cafes to use internet, they use computers instead of going to the street.'
> 'Using technology is really important in teaching something and it is popular, I like it.'
> 'Using technology is very common.'
> 'The world is changing, everything is changing, and the education system should be changed, too. It should be adapted to new developments. I think this is the key point of technology.' To follow the developments in the world, especially the demands of the workforce for the 21st century, requires the ownership of the knowledge of technology.

As Kök (2006) states, the objectives of ICTs at primary level are defined by the MoNE under specific definitions which focus mostly on making students computer

literate and able to use computers to solve the problems emerged. That means when the preservice teachers start working as teachers their students will have knowledge about how to use computers and as they grow up with all the mobile phones, laptops, tablet pcs around themselves, they will be familiar with these technological devices. Moreover, the kind of students will probably interested in materials offered through these devices. From the quotations of the participants it is clear that they are aware of this fact and in their education faculties they can be given some readings on the digital natives and have some more insight about how they learn and perceive the world.

4.8.2. Theme II: Technology As An Attention Getter

> 'If I use technology and become a teacher, the students will participate the lessons more actively.'
>
> 'Classroom management is really difficult and to keep students' interest on the lesson I think it could be easier with the use of technology.'
>
> 'It can be very useful, it takes the attention of students. They are really interested in using technology in class and they also use it in their home and they are interested.'
>
> 'Children like technology, so they can be active in the class. They can participate the courses if we use technology.'
>
> 'We know today's children like technology very much, so as a teacher I should know it.'

Thus, the majority of the preservice teachers favor the use of technology in their classroom since today's digital natives appear to rely more on technology based learning than traditional one. It is clear from the data that these preservice teachers have an idea about what will their students be like. This information can can help teacher training institutions to focus on more articles about the '21st century learner'.

With the help of this data, when preservice teachers will go to their classes, they will have an idea on what kind of students are going to teach in their schools. This information will help the preservice teachers plan their lessons in line with the skills the '21st century learners' need.

4.8.3. Theme III: Use of Technology for Material Production

The participants in the study were all aware of the fact that technology offers a wide range of tools to make teaching English easier, better and practical. They believed that by using the Internet they can access the authentic material without spending any money and they liked the idea of technology enabling them to create colorful lessons by using visuals available from the Internet. Some quotations from the participants are given below:

> 'By using technology I can create more visual lessons. In this way students can learn easily because they see and they understand effectively.'
> 'It is easy way to reach everything (Internet) whatever comes to your mind about learning.'
> 'Generally technology is useful for language learning and teaching because you can use this for everything, for example teaching listening, speaking, writing or reading, so it is useful.'
> 'Students can learn easier and they can enjoy while learning.'
> 'It is useful because it gives the opportunity to hear the native sound of the language and the correct version of the language from the native speakers.'
> 'Technology is a new advantage for our classroom and it enables us to teach English easier and it also helps teachers to save time and also with the help of technology, teachers can create new activities and also according to the context and also to the students interest.'
> 'I like using technology while preparing materials for my classes.'
> 'I can create my own materials with suitable technology'.
> 'It gives us the opportunity to present the lesson in a different way'
> 'It is enjoyable for me to create materials by using technology.'
> 'Technology offers useful materials, it makes our world easy.'
> 'While you are preparing material with hard things you spend more time.'
> 'Using technology saves our time and we do not need to carry packages of materials, so when you put the materials in a flash drive you can carry lots of things to the class. It makes your job easy.'

From these findings it can be interpreted that the preservice teachers are aware of the opportunities computer technologies provide for creating lesson materials for teaching English. One of the most important things while teaching English is using authentic materials, audio and visuals. Preservice teachers mainly claim that with the help of computer technologies it is possible to access these kinds of resources easily. English lessons can be more interesting and informative for the students. If preservice teachers have ideas like the ones listed above, it can be easy for the education faculties to get them involved in online lessons or any face to face lesson about using technology in class. In such courses they can be guided about what kind of technological sources are available to create materials or for teaching English.

4.8.4. Theme IV: Possible Problems When Using Technology

The participants of the study were preservice teachers who were going to practicum schools once a week for four hours. This gave them the opportunity about the facilities that the government provided for schools in their city. They also had some background knowledge about the technical infrastructure of their hometown and the attitudes of school management about this issue. Some schools did not have the internet connection, some lacked computers, some had the internet connection but with poor signals. Therefore, they were a bit doubtful about the technical facilities they will have at their schools. Preservice teachers are often employed at the Eastern part of Turkey where there is limited government support, so most of them were afraid of having no internet connection at all. The respondents' quotations are given below:

'No internet connection at school'
'No computers at school'
'Some students don't have the computers and the Internet, so he can't use this technology and we can't benefit from the internet.'
'Maybe we cannot use technology in our school. For example, some schools are not in the central areas. They may not have facilities.'
'There may be technical problems. '
'I think it requires hard working, studying a lot for the teacher.'
'Internet connection. If you don't have it, it is really a problem for you.'

> ‘I think technology is something by which you can find something useful. However, technology is like an ocean, there is no end, for this reason you should use technology in useful ways’.
>
> “I think it is very useful, but if we work in a big city students can have the Internet at home, so they can use the Internet actively at home, but if we work in a small city or village all students may not have technology at home, so only teachers use the technology in class.”

The quotations of the preservice teachers generally give the impression that they want to use technology, but they have some concerns regarding the technological infrastructure of the schools they are going to work with. As these preservice teachers go to their practicum schools and follow the news from other teachers in Turkey, they already know that it is not very surprising to have some problems about using technology in schools. This is a very important issue which sometimes prevents the preparation of lessons in which technology is used or searching about new ways to use technology for teaching. Education faculties should also prepare the preservice teachers for such situations; they might have problems about using technology in their schools. They should have some other plans if there is no internet connection or if the projector does not work. Similar activities by using paper and pencil may be planned in some courses at the education faculties. For example, preservice teachers might be asked to discuss this problem with their friends and they should come up with some solutions for such problems about using technology in class. The concerns of the preservice teachers might be turned into some possible problems while teaching and might be thought about when they are at their faculties. Then they will not be overwhelmed in situations when they cannot use technology. In an online eourse, like the treatment of this study, this issue might be discussed on an online forum through which all participants of the course share ideas about what to do when a problem arises while using technology or while planning to use technology for teaching.

4.9. Research Question 8: How Do Preservice Teachers Envision the Use of Technology Within Their Future Classes After The Online Educational Technology Course?

From the transcripts of the interviews the general implication that the researcher gained is that all the preservice teachers are planning to use technology for preparing materials for teaching English. Their responses mostly include specific information from the online educational technology course; they express their preferences on which software to use for teaching English. The categories emerged from their responses to this open ended question are categorized with the names of the Web 2.0 tools because the participants answered this question by giving the name of the tool they would like to use in the future. These are Voki, Wiki, Storybird, Blog, and Podcast. A quotation from one respondent on the use of technology in the future is given below:

> 'We started to look at English Language Teaching with a different view, what we can do with technology and software. I think to be involved in technology and to be able to use this is important because our students are a bit naughty, the classroom management is difficult. To keep the students' interest on the lesson I think may be easier with these softwares.'

4.9.1. Category I: Storybird

This Web 2.0 tool turned out to be the most popular among the others when the respondents answers are analyzed. As Storybird is a colorful tool and includes some nice pictures by artists, it was the most popular. Participants liked it a lot while they were constructing some story books for themselves or their students. Below are some quotations from the respondents on the use of Storybird in their future teaching.

> **'**If I don't have the Internet at school in the future, I can use Storybird because I can write stories beforehand and bring them to the class.'
>
> 'I would like to use Storybird to improve their reading skill. I like creating and I know that my students will enjoy reading stories.'
>
> 'Reading is a boring skill for students, but by using Storybird it may be amusing'.

‘Storybird and Voki are enjoyable things and they are visual.’

‘I find it hard to find authentic material according to the level of Turkish English language learners, so by using Storybird I can create it according to the level and context I choose.’

‘I would like to use Storybird because the students can be creative. They use the pictures and they make sentences according to the pictures. I think it is enjoyable and all students will want to participate.’

‘I want to use Storybird because there are some pictures and the children like that. We can create our own story.’

‘If you teach a grammar subject, you can create your own story in Storybird and impose your grammar subject in this story and you can teach grammar by using it, especially to young learners. It can attract their attention.’

From the preservice teachers’ expressions it can be concluded that Storybird is easy, attractive, colorful software. They express the idea that they liked the creative side of the this software by letting the user create a story by using the given pictures and making their own sentences. Another point they mentioned was its giving them the opportunity to integrate new grammar topics or new vocabulary items into their stories. As children like stories, the preservice teachers believe that their students will like reading stories from Storybird or they will create their own stories by using the software. This software might be worked on more detail and more hands on activities about how to prepare materials for different skills can be discussed in a lesson with the preservice teachers. The preservice teachers might share their stories with their friends and suggest some ways to integrate it into teaching grammar, vocabulary, reading, writing and listening. As Storybird can also be used offline, preservice teachers might use it without being concerned about technical problems that may arise. That is, with the help of this finding Storybird can be suggested as a practical, colorful and informative tool that can be used for various topics in English to preservice English teachers.

4.9.2. Category II: Blog

This is the second popular Web 2.0 tool participants would like to use in the future. The participants were familiar with the blogs before, still they had great fun

while constructing their project. Below are some quotations from respondents about the use of blogs for teaching in the future.

> ‘Thanks to blogs I can see my students’ products and evaluate their process and students can make some comments to each other.’
> ‘Blogging is good because students address to real audience, their friends can read them and comment on them.’
> ‘I think I will make use of blog and wiki because they will make my lessons enjoyable and my students will like these activities.’
> ‘My favourite is blog; I’m planning to use it for my own. Maybe I can use wiki, podcast and Storybird for my students because I know children like technology, the Internet.

The idea of writing to real audience makes Blog an attractive tool for the preservice teachers in this study. They think this will be a motivating factor while their students are writing on their blogs. Participants also think that it will be an enjoyable process because their students will be able to comment on each other’s work. Therefore, blog might be included among the first five useful tools for teaching English in class and more examples on the use of blogs in teaching English might be introduced to students when they are at the education faculty. Preservice teachers might be asked to set up their own blogs like it is done in this study, to keep a portfolio of their works when they are at the faculty. In the end the preservice teachers will have an electronic portfolio of their work which will be accessible by everyone.

4.9.3. Category III: Wiki and Podcast

These two Web 2.0 tools were also used by the participants during the online course. There was a general agreement about the benefit of using a blog for language learning and teaching. Participants in the study formed a Wiki for teaching an English topic. The common idea was using it for teaching writing. Podcast was another tool that the participants used a lot. For the purposes of this study, participants of the online course also prepared a podcast where they talked about their feelings on being a senior student at the faculty (participants were the fourth year students at the time of the study)

‘I can use a software like wiki or podcast for teaching different skills. For example I prepare a wiki for a reading course a podcast for speaking course.’

‘For listening and speaking podcast is very good. You can also record your own voice. It can be enjoyable and interesting for students to listen to their teachers’ voice, also they can create their podcast.’

‘Wiki has many advantages for teaching many skills, others have special features, for example podcast may be used for listening and speaking, Storybird for reading, but wikis can be used for many things.’

‘I like podcast because I can use my voice and students can hear my voice and improve their pronunciation. In this way four skills of students improve.’

‘Podcast is really good for listening and speaking.’

‘I can use wiki for the writing course and that would be beneficial for high school students. They can do collaborative writing by wiki. In wiki you can use cartoon characters for young learners.’

‘I will certainly use wiki when I become a teacher because if I use wiki I can have a chance to improve students’ writing.’

‘Wiki is a good source for teaching writing, also podcast because listening and speaking are ignored skills in our education system and podcast is a good tool to teach listening and speaking.’

‘I can use podcast for listening skill. According to the units in the coursebook I can use it as extra material. I can record my own voice and students are familiar with the teacher’s voice. It will be very useful.’

It can be interpreted from the this data that preservice teachers are planning to use Wiki for teaching writing as it is like writing on a notebook on this software. Students can work collaboratively or individually to write about something for the real audience. The preservice teachers think that some assigments can be designed on Wiki. Hence, when suggesting software to preservice teachers, Wiki might be suggested as a good tool to teach writing. Preservice can be asked to come up with some lesson plans in which they use Wiki for teaching writing or reading. They can also create their Wikis which are planned to teach an English subject.

4.9.4. Category IV: Voki

Voki is a Web 2.0 tool through which one can create an avatar which can speak or listen. Participants used this tool by creating an avatar which represented themselves and spoke with the any kind of input one provides. They mostly think about using Voki for teaching speaking and listening. The quotations from the respondents are given below:

> 'By using Voki students create new person, they write their text and listen to them for pronunciation and understanding the text. It is very beneficial.'
> 'Voki is really enjoyable and addresses listening and speaking skills.'
> 'Voki gets the attraction of the students because I think the vocalization and animation of a character gets the attraction of the students.'

Like the other software listed above, Voki is a strong software that most preservice teachers who participated this study would like to use when they become teachers. They express that it is a very good tool to teach speaking and listening as an avatar can read some given texts in a chosen accent or with their voice to their students. As it is done in the treatment of this study, preservice teachers might be asked to prepare a Voki in which they plan to teach a speaking or a listening class. Preservice teachers might share their Voki and use it in microteaching. Preservice teachers might talk about some other ways to teach English.

CHAPTER V

DISCUSSION AND CONCLUSION

5.1. Introduction

This chapter presents a brief summary of the study and summarizes the findings from data analysis in Chapter IV. The findings will be discussed with reference to the related literature and the researcher's own comments. The implications about the integration of technology in English Language Teaching Departments will be discussed and the recommendations for further research will be shared.

5.2. The overview of the study

The central premise of this study was to improve the preservice English Language Teachers' ICT skills and to develop positive attitudes towards the use of technology in language teaching. For this purpose an online course via Moodle was implemented. The researcher used three tools to gather data from 27 participants who were 4th grade students at an English Language Teaching Department at a state university in Turkey. Two of the tools: 'Computer Technologies Survey' and 'ICT Can Do List' were used as pretest and posttest to find out the change in terms of attitude towards computer technologies, computer self-efficacy and computer technology literacy of the preservice teachers. The third tool was a semi-structured interview which was used to gather some information about the perceptions of the participants on the use of computer technologies in teaching English. The general results show that the treatment, here it is the online educational technology course on Moodle, did not have a significant impact on the attitudes and self-efficacy of the preservice teachers about using computer technologies. However, it had a significant impact on the computer literacy of preservice teachers towards computers. The possible reasons behind these findings will be discussed in this chapter.

The discussion will be carried out by the findings from each research question. The research questions will be categorized by the name of the information it searches from the data. For this aim, the first six research questions are categorized as three titl

5.3. The Attitude of Preservice English Teachers' Towards Computer Technologies

Computer technologies are a part of students' education life. They might be using it for typing an assignment, conducting a research on a search engine, communicating with friends or professors at their departments. It is widely observed that they like using it and they are good at using it. However, when the students are trained to become English language teachers, their ideas, especially attitudes towards computer technologies are much more important than ever. It is not the problem of using or knowing it, but what they think about the use of computer technologies is more important as a wide range of sources for learning and teaching English is accessible by using technology. As Ping (2005) points out when preservice teachers take technology specific courses, they upgrade their content knowledge, develop the meaning of inclusive education and technology experiences changed their views of teaching and their own perceptions of themselves as teachers.

An English teacher might use English podcasts prepared by experts in the field for teaching listening or s/he can prepare effective lessons for teaching Vocabulary by using PowerPoint. Especially in Turkey, it is not possible for Turkish learners to meet native speakers during their education. Hence, the Internet is the only environment where they can listen to or watch materials in English. English teachers should have positive attitudes to use this kind of computer technologies to enhance their teaching.

Samuel & Bakar (2006) state that the attitude of teachers should be seriously looked into if any integration is to going to be implemented. Teachers take the ICT integration courses and complete it successfully and it appears to end there. Once back to school, the teachers tend to adhere to their traditional ways of teaching. There might be several reasons leading to this; some teachers complete these courses because it is an obligatory task to do for the summer or winter break, some do not believe in the effectiveness of using technology for a better teaching, some find it time consuming and tiring to prepare courses by using computer technologies and some cannot get enough technical help from their school. A sense of commitment and dedication on the part of the teachers is necessary. Because of this reason, the attitudes of preservice teachers about computer technologies tried to be found out with the help of the data collection tools in this study.

As regards to the results of the survey, the preservice English teachers who participated this study declared that they used the computer technologies on a daily basis for different purposes. They said they used it for checking their e-mails and for being more effective in their lessons by communicating with others over a network. It was also found out that they were confident (24 out of 27) that they can do well in a course that requires them to use computer technologies. They do not think that using computers in their courses will mean extra work. They are eager to use computers in their courses because they think it is useful in language teaching.

As computers are tools that they use everyday, they feel at ease learning about computer technologies. They are comfortable about using computer technologies and they think that they may use computer technologies to access many types of information for language teaching. They do not feel threatened by the impact of computer technologies and they are widely making use of them. Besides, they think they can solve a problem about computers when something goes wrong.

Preservice teachers also think that computer technologies can be used to assist them in organizing their work. Moreover, they think they can use computer technologies to learn new skills by accessing different websites about language teaching. Most of the preservice English teachers trust their ability to work with computer technologies.

Although they were aware of the positive contributions of computer technologies in English Language teaching, they had some concerns about their abilities about using it properly before the online course. Some of the preservice teachers (3.7 %) believed that they were not the type to do well with computer technologies, but they changed their ideas after following the online course and creating materials on their own by using computer technologies. Similarly, 66.6 % of the preservice teachers do not believe that knowing how to use computer technologies will be helpful in their future work, but after the study this percentage decreased to 37 %. That is, the integration of technology in the teacher training should be by enabling some practice after showing and explaining how to use some technological tools.

It can be concluded that if teachers have a positive attitude towards using something new in their lessons, they will put more effort to use it to make their lesson more effective. It is of vital importance to set examples, lectures about the use of computer technologies. It is also important to let preservice teachers try these tools, spend some time with these tools and think how they can adapt them for their lessons.

Then they will change their attitudes in a positive way and be eager to try and learn new technological tools to use in the classroom. As Dexter, Anderson and Becker (1995, as cited in Ertmer et al., 2003) state that teachers need information about how, as well as why, to use technology in meaningful ways. Lack of knowledge regarding either element can significantly decrease the potential impact that these popowerful resources might have on student learning. It also should not be forgotten that teachers, here the future teachers, are the most important elements in a technology integration process in a school. If they also have positive attitudes towards technology integration in English Language Teaching, more effective results in terms of English teaching will be observed in the students. Students who are taught in a technology rich environment with teachers who have positive attitudes towards the use of computer technologies are taught to be more successful in language learning.

5.4. Computer Self-Efficacy Perceptions of the Preservice English Language Teachers

Ertmer et al. (2003) tried to find out the effects of electronic models on preservice teachers' perceived ideas about self-efficacy regarding technology integration. They found out that the more ideas students have about technology, the stronger their belief that they can be successful integrating technology into the classroom. If teachers who have high levels of efficacy regarding teaching with technology, they are more likely to participate more eagerly, expend more effort, and persist longer on technology-related tasks than teachers who have low levels of efficacy. Likewise Teo (2009) found out that student teachers' perception of their basic technology skills and ability to use technology for pedagogy were significant predictors of their intention to use in either a traditional or a constructivist way.

The best ideas about technology use will be of no use if teachers do not believe that they are able to implement them in their classes. Hence, the computer self-efficacy of the teachers is the most important point in the use of computer technologies in teaching English. As Chao (2003) points out, self-efficacy can provide information that will help teacher training institutions to develop effective training practices and programs that will lead to the successful implementation of educational technology through computer applications in the classroom.

5.5. Computer literacy of the preservice English Language Teachers

Computers have entered people's daily lives and become a part of it for the last 24 years. The computer has also brought some terms with it and 'computer literacy' is one of them. It is a kind of knowledge about computers which people should have in order to make use of it. For general users, Newfields (1997) talks about three components of computer literacy:

1. understanding basic computing principles,
2. knowing how to use at least one computer operating system,
3. proficiency with one or more software programs.

When it comes to the world of education, Corbel and Gruba (2004) mention that our rapid uptake of computer usage demands new ways of thinking about what we teach, how we teach it and, increasingly, how we justify our pedagogical choices. For the English language teachers, there is a great urgency to look beyond traditional forms of print media in order to consider how we prepare students for careers that require active participation in the new literacies of the digital age.

Son et al. (2012) think that computer literacy involves the development of knowledge and skills for using general computer applications, language-specific software programs and Internet tools confidently and competently in language teacher education. It comprises a number of aspects, including technological awareness, technical vocabulary, components of a computer, concepts of data and programs, ways of computing, working on files, documents and pictures, working with multimedia, evaluating resources and communicating with others.

A conclusion that can be made about the relevant studies is that teachers' technology use and knowledge are closely related to their confidence level and has an influence on their attitudes toward technology integration (Rakes & Casey, 2000 as cited in Son et al., 2012). For a successful integration of technology in the classroom, teachers need to improve what they already know in online environments (Rilling, Dahlman, Dodson, Boyles & Pazvant, 2005 as cited in Son et al., 2012) and then they will be technically competent for using various computer applications for teaching in their classrooms. Yıldırım (2000) also recommended that the best way to encourage teachers to use ICT in the classroom was to increase the level of competency. This can

be achieved through appropriate training by providing ICT related courses that are designed according to the individual's competency level.

In this study, the participants were preservice teachers and until the time of the study they had had some ICT related courses at the faculty. Göktaş and Yıldırım (2003) remind us that, the Higher Education Council assigned the courses 'Computer' and 'Instructional Technology and Material Development' to integrate ICT into primary and secondary teacher education programs. English Language Teaching departments also offer 'Material Development and Adaptation for Foreign Language Teachers' as a must course and 'CALL' as an elective course. It was clear at the end of this study that these courses had a great impact on the computer literacy of the preservice teachers who participated in this study. Nevertheless, they had the chance to learn some new Web 2.0 tools and software which showed an increase after the treatment.

The researcher was also carrying out 'Material Development & Adaptation for Foreign Language Teachers' at the time of the study and 'Educational technology for Foreign Language Teachers', which was the treatment of this study, was designed as the online component of that course. It was a way of informing them about the related computer technologies. Online courses can also be designed as in-service courses in the same sense. As teachers working in the field already have computer literacy, online courses can be designed as in-service training to develop what they know and to inform them about the recent technologies about language teaching. Moodle, which was used as the platform of the online course in this study, would be a suitable tool to design a course for in-service teacher training as well. Then the teachers will feel more competent about the use of computers and will probably be more confident in implementing CALL. Indeed, updating computer literacy should be a lifelong development of skills for teachers.

In this study the researcher came up with the conclusion that the treatment, the Moodle Course, fostered the computer literacy of preservice teachers. The findings show us that there is an increase in the scores about computer literacy after the online course for Educational Technology. The course might inspire teacher trainers or educators to integrate technology into the curriculum.

5.6. Perceptions of the Preservice English Language Teachers on the Use of Technology for Learning and Teaching English

Perceptions are views or opinions held by an individual resulting from experience and external factors acting on the individual. Starting from this point, the researcher tried to find out what the preservice teachers' perceptions about the use of technology in learning and teaching English are.

The preservice teachers generally had positive remarks about the use of technology in English Language Teaching. This is beneficial for them; as Chapelle (2003) reports teachers need to learn to use computer technology for constructing and implementing materials for teaching and assessing English, and they need to engage in innovative teaching and assessment through the use of technology. In the preservice teachers' words 'as English teachers they should keep up with the time' because the new technological developments enters into the lives of the students very quickly in the 21st century. They are aware that they are going to educate the children of the digital world, so they feel the urge to update their knowledge. If language teachers feel like this, then they will be eager to learn and implement the new activities including technological devices in their classrooms. A book published by the professional association in the United States, Teachers of English to Speakers of Other Languages as a teacher's resource book begins by explaining the five main reasons to use the Internet for English teaching. They go on by explaining how the Internet is conducive to developing "authenticity, literacy, interaction, vitality and empowerment" (Warschauer, Shetzer, & Meloni 2000 as cited in Chapelle, 2003). The Internet is only a medium, and therefore the only important matter is teaching (Chapelle, 2003). Thus, by using different mediums, in this case technology, it should not be forgotten that the thing which carries the utmost importance is teaching.

Teachers of the 21st century generally complain that their students are not paying enough attention for the lessons and that their attention span is very short. The preservice teachers who participated in this study also think similarly. Hence, they claim that they should first attract the students' attention to teach English. They might again use technology for this purpose; they might start the lesson with a Wordle image which summarizes what they had done the previous day. They express that it might be very useful to use the word clouds in Wordle. Besides,the teacher might make them watch a video, stop it and want them to guess the conversation which follows. Many

activities like can be designed to attract the students. When the students are involved in the topic, it is easier for the teacher to chain her activities and teach something to students.

In addition to drawing the students' attention, they also think technology helps the learning of their students. ICT tools let collaboration among students. They are also very useful for team work; students also learn a lot while they are working with their peers along a project while using technology. The teachers first should find about the relevance of any technological device and decide if it will help the learning of her /his students.

Another point that most of the participants made was the use of ICT for creating materials. A teacher may find an authentic document, video or listening and use it for classroom teaching. One of the respondents explained that she was planning to use podcast for listening activities and it is a general idea among the respondents that it is easy and practical to create materials with the help of ICT tools. They think they save time and the materials they create will be more effective. They gave examples for using 'podcasts' for teaching speaking and 'Storybird' for enhancing reading or writing skills.

Besides the positive ideas the preservice teachers held about the use of technology in language teaching, some came up with ideas reflecting some concerns. For example, the insufficient infrastructure of a public school was expressed as a concern which would prevent them from using technology. Some of them explained that if their school had no internet connection or no computers, the use of these technologies would be impossible. Some of them also thought that there might be some students in their classes whose families have a poor economic status. It is a great possibility that these students will not have the Internet connection or the computers in their homes. These worries reflect some of the truths about the schools in Turkey. Some of them really do not have the sufficient infrastructure or enough maintenance service for the computers used. Using technology under these conditions would create some time wasting problems for the teachers. The findings of the study confirm various factors that have already been pointed out in previous studies (e.g. Yıldırım, 2000, Albirini, 2006, Egbert et al., 2002). External factors such as insufficient infrastructure for computer technologies at school, lack of administrative support from the school, poor economic status of the students are closely related to the educational environments.

Moreover, the preservice teachers believed that the use of computer technologies would be of great help for language teaching and learning through the use of the free software on the Internet. They found the Internet helpful and time saving for creating materials and they found computer technologies handy for general use. They were planning to use computer technologies to satisfy the needs of their learners who would need the education style required in the 21st century. They were aware of the fact that the Internet was full of activities for language learning and they should choose the relevant ones for their courses.

These findings suggest that the difficulties the preservice teachers observe have an effect on their perceptions about the use of computer technologies in their future classes. Although they are eager to learn and apply computer technologies for a better teaching, they also consider the possible obstacles. If these preservice teachers do not depend on the technology for teaching all the time and consider technology as a tool to assist their teaching when needed, they will be more creative about the use of computer technologies. They should follow some websites, blogs to develop professionally and to find out about preparing materials by using technology for their classes. They should think of some situations where there will be one computer and no internet. They should also plan some activities without internet connection and projector in a classroom. They might even think about using technology to prepare authentic materials for their class. With the help of mentioned activities the preservice teachers might feel more confident and eager to use computer technologies in their classrooms.

5.7. The Plans of the Preservice English Language Teachers About the Use of Technology In Their Future Classes

The preservice teachers who participated in this study all plan to use technology in their classes if their school environment has the sufficient infrastructure. They believe the use of computer technologies will help their teaching and scaffold their students' learning. After having the online educational technology course, they came up with some concrete answers and justifications for the use of those specific tools for teaching. It is good to see that they are making some plans in accordance with the level of the learners and the adequacy of any tool for teaching reading, speaking, listening or writing. This might have been because of experiencing the Web 2.0 tools themselves during the treatment. It was also found out that they were using the Internet on a daily

basis for checking their e-mails. They used MS word or PowerPoint for their assignments at school. That is, the experience with the use of technologies adds to the computer self-efficacy of preservice teachers and makes them more conscious about planning with teaching with technology. The researcher did not give them any articles to read about TPCK, but directed them for that kind of knowledge by introducing them the Web 2.0 tools and making them think of the use for teaching. For example, she wanted all the participants to design a wiki for an imaginary class they would teach in the future because of the time constraints and curriculum issues about their practicum schools. They did not have the chance to prepare for their practicum classes. For example, some preservice teachers came up with wikis for teaching reading or writing.

Kahmistein (2000 as cited in Chapelle, 2003) thinks that if ESL teachers are to use technology effectively for teaching in the future, they must use it for learning while they are students. Limiting technology experiences to one course or to one area of teacher preparation is insufficient for developing teachers who can use technology creatively and flexibly. Because of this reason, it is a good idea to plan a course like the treatment here and let preservice teachers prepare lessons for their future classes. If their practicum schools have the technical infrastructure it is better to plan for the class they are already teaching at their practicum schools. Preservice teachers might observe each other's lesson and comment on each other's work. This will also add to their learning about the integration of technology in teaching in their classes.

It is clearly seen that there are many variables involved in the integration of technology in English Language Teaching process. In brief, the teachers, the students, the materials (here the computers and the Internet), the schools, the curriculum, the attitudes and self-efficacy of the teachers can be listed. They all have important contributions to this process. If the aim is fostering the English Language skills of the digital natives of our age, all these items should be considered and their relation to the efficient integration of technology in teaching should be supported.

As this study starts with a suggestion of a program to educate the Preservice English Language Teachers in terms of educational technology, the teachers may be the most important parts of technology integration. They will be the guides in each language class to the success in learning the language by using technological tools. For this reason they should have TPCK to decide when to integrate technology in their classroom. This puts a lot of burden on the shoulders of teacher training institutions and education faculties. They need to come up with changes within their curricula for

educating the teacher candidates by allocating more time on pedagogy and practice in using technology in language teaching.

Preservice teachers should have adequate time to use software or learning platforms before graduation. Real experiences teach them more than what they read in a book or website. In this study preservice teachers underwent an online program which they had to apply the topics they have learned and put them on their blogs. These preservice teachers reported that they learned a lot while they were preparing their homework for the online course.

5.8. Implications of the Study for the Teachers

Blasszauer (2001), summarizing the vision of today's education, maintains that, as teachers, we should transform students from passive recipients of the learning process into active initiators and productive contributors of the process. He also states that teachers should become facilitators of student independent, active learning which enable them to become lifelong learners. Thus, we, as language teachers, can provide this by making use of the possibilities that the Internet, Web 2.0 tools and computers offer.

It is clear that as Chapelle (2003) asserts, technology will play a significant role in teaching and learning in the future and thinks the important task to be done first should be research that addresses questions that can inform teachers and learners about the best ways to design and use technology. In this study the participants were given some articles about the use of computer technologies for teaching English and they were introduced to some virtual environments like 'Tapped in' where researchers share their articles, lesson plans and materials. Research results are needed to strengthen the empirical basis for software developers and applied linguists working in teacher education, and pedagogy, and technology. Hence, teachers using technology should be encouraged to share and conduct classroom research while employing educational technology. There should be some common platforms to discuss some technological tools in terms of their effectiveness for teaching languages because teachers need to know why they do what they do, using pedagogical approaches that are intentional and well considered. They need to be able to make informed judgments on the appropriateness of the tool for the task; for example, knowing what kinds of language

learning goals and tasks may appropriately include the use of chat or email (Hubbard & Levy ed., 2006).

When it comes to the integration of technology in teacher training, it can be said that instructional technology cannot be treated as only part of a teacher preparation program, but must be ongoing in order to be successful (Northrup & Little, 1996). Haltunen (2002) echoes this call for integration while adding that teachers also require an ongoing retraining as new technologies and materials become available (as cited in Hubbard & Levy ed. 2006). Professional development should be considered as an important factor in the continual expansion and fast speed of technology.

5.9. Implications of the Study for Teacher Training Institutions

In this study it was found out that a ten week online course about educational technology was not enough to learn and apply technology in teaching English. Within this time span it was not possible to increase the computer self-efficacy and increase the positive attitudes about the use of computer technologies. Therefore, teacher training institutions should allocate more time for the practice of computer technologies within the curriculum. Preservice teachers should be familiar with the computer technologies starting from their first year. The curriculum of the 'Computer I' and 'Computer II' courses may include the Web 2.0 tools and various software for teaching English. Preservice teachers might have the chance to investigate these tools earlier at the faculty.

The teachers of all branches need to be equipped with TCPK, which is the vital component of the use of technology in education. This study suggests a way for teacher training institutions to inform preservice teachers about the relevant Web 2.0 tools, software and TCPK through an online course. By this way it can become a lifelong learning skill for the preservice teachers.

As Samuel and Bakar (2006) states the full cooperation and support from the school administration, positive attitude of English teachers, continual training to update teachers' ICT skills and appropriate training on when and how to use ICT tools appropriately in classroom situations is necessary to fully realize the benefits of ICT integration.

Angela Mc Farlane, Professor of Education and Director of Learning Technology, Graduate School of Education, University of Bristol writes:

> What do we know, whether from personal experience as teachers or learners, is that ICT has an impact on learning, for some learners, under some conditions, and that it cannot replace a teacher. We know that a key factor in impact at school level is and remains the teacher, whose role in managing and integrating the ICT-based experiences learners have with the rest of the curriculum and culture is vital and probably always will be (as cited in Times Educational Supplement, p.17 in Davies, 2004).

Mc Farlane clearly points out ICT has an influence on learning under certain conditions and he also adds that ICT cannot supersede a teacher. Teachers are still the most important people who prepare the conditions for effective learning. They are the ones who integrate technology and manage the learners' use of technology. Hence, the teachers' perceptions, attitudes and self-efficacy regarding computer technologies is very important. The teacher training institutions, where preservice teachers form their ideas about the use of ICT, should consider this and offer a curriculum where they will have the chance to learn about TPCK, plan lessons with computer technologies and teach by using computer technologies.

5.10. Suggestions for Further Research

This study was carried out with the fourth year students at the English Language Teaching Department in 2009-2010. That means at the time of the publication of this study (2013) most of the preservice teachers will be working at private at public or private schools in Turkey. Participants of this study can be contacted again; their use of technology in the classrooms they teach can be investigated. By using a semi structured interview, their attitudes about the use of computer technologies might be compared with the post-test findings (ACT) of this study. Then it might be possible to have an idea on the effectiveness of the online educational technology course during preservice English Language Teacher Education after 3 years.

Another idea might be to improve the contents of the online educational technology course with the current Web 2.0 tools and software and carry out a similar study with in-service teachers working at various schools in Turkey.

In this study it was found out that the online educational technology alone was not effective for improving the computer self-efficacy of the participants. Thus, it is possible to design a longer course (for a year) where participants are exposed to more

practice with the new technological ideas and given the chance to apply their teaching with technology in their practicum schools with students.

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APPENDICES

Appendix A. The Computer Technology Survey

Computer Technologies Survey

Part One: Attitudes Toward Computer Technologies (ACT)

This part of the survey has 19 statements that measure an individual's attitudes toward the use of computer technologies. After reading each statement, please indicate the extent to which you agree or disagree by selecting the appropriate option button. Please use the scale below to assist you in answering these statements. Please respond to all statements. There are no correct or incorrect responses.

Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
1	2	3	4	5

1.	I don't have any use for computer technologies on a day-to-day basis.	Strongly Disagree O	Disagree O	Not Sure O	Agree O	Strongly Agree O
2.	Using computer technologies to communicate with others over a network can help me to be more effective in my job.	Strongly Disagree O	Disagree O	Not Sure O	Agree O	Strongly Agree O
3.	I am confident about my ability to do well in a course that requires me to use computer technologies.	Strongly Disagree O	Disagree O	Not Sure O	Agree O	Strongly Agree O
4.	Using computer technologies in my job will only mean more work for me.	Strongly Disagree O	Disagree O	Not Sure O	Agree O	Strongly Agree O
5.	I do not think that computer technologies will be useful to me in my profession.	Strongly Disagree O	Disagree O	Not Sure O	Agree O	Strongly Agree O
6.	I feel at ease learning about computer technologies.	Strongly Disagree O	Disagree O	Not Sure O	Agree O	Strongly Agree O
7.	With the use of computer technologies, I can create materials to enhance my performance on the job.	Strongly Disagree O	Disagree O	Not Sure O	Agree O	Strongly Agree O

8.	I am not the type to do well with computer technologies.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○
9.	If I can use word-processing software, I will be more productive.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○
10.	Anything that computer technologies can be used for, I can do just as well some other way.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○
11.	The thought of using computer technologies frightens me.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○
12.	Computer technologies are confusing to me.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○
13.	I could use computer technologies to access many types of information for my work.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○
14.	I do not feel threatened by the impact of computer technologies.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○
15.	I am anxious about computers because I don't know what to do if something goes wrong.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○
16.	Computer technologies can be used to assist me in organizing my work.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○
17.	I don't see how I can use computer technologies to learn new skills.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○
18.	I feel comfortable about my ability to work with computer technologies.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○
19.	Knowing how to use computer technologies will not be helpful in my future work.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○

Part Two: Self-Efficacy for Computer Technologies (SCT)

This part of the survey has 47 statements about your confidence with computer technologies. After reading each statement, please indicate the extent to which you agree or disagree by selecting the appropriate option button. Please use the scale below to assist you in answering these statements. **Please respond to all statements**, even if you have not had a great amount of experience with a particular type of computer technology. There are no correct or incorrect responses.

Your **responses should reflect your current level of confidence** with the activity described in each statement. For example:

I feel confident…

	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
… Turning on a computer.	1	2	3	4	5

If you select the option button "Agree", you indicate that you have some degree of confidence in turning on a computer.

Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
1	2	3	4	5

I feel confident….

1.	I feel confident accessing previous files with a word processing program.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○
2.	I feel confident conducting a search for Internet resources.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○
3.	I feel confident copying an individual file.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○
4.	I feel confident decoding a file which has been downloaded from the Internet.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○
5.	I feel confident deleting messages received on e-mail.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○

6.	I feel confident downloading a file from the Internet.	Strongly Disagree O	Disagree O	Not Sure O	Agree O	Strongly Agree O
7.	I feel confident editing previous spreadsheet files.	Strongly Disagree O	Disagree O	Not Sure O	Agree O	Strongly Agree O
8.	I feel confident entering appropriate formulas for calculations in a spreadsheet.	Strongly Disagree O	Disagree O	Not Sure O	Agree O	Strongly Agree O
9.	I feel confident entering data in a spreadsheet.	Strongly Disagree O	Disagree O	Not Sure O	Agree O	Strongly Agree O
10.	I feel confident entering records in a database.	Strongly Disagree O	Disagree O	Not Sure O	Agree O	Strongly Agree O
11.	I feel confident finding a file that I need.	Strongly Disagree O	Disagree O	Not Sure O	Agree O	Strongly Agree O
12.	I feel confident formatting data fields in a database.	Strongly Disagree O	Disagree O	Not Sure O	Agree O	Strongly Agree O
13.	I feel confident formatting text (e.g., bold, underlining) while word processing.	Strongly Disagree O	Disagree O	Not Sure O	Agree O	Strongly Agree O
14.	I feel confident formatting the columns and rows in a spreadsheet.	Strongly Disagree O	Disagree O	Not Sure O	Agree O	Strongly Agree O
15.	I feel confident forwarding messages received on e-mail.	Strongly Disagree O	Disagree O	Not Sure O	Agree O	Strongly Agree O
16.	I feel confident getting rid of files when they are no longer needed.	Strongly Disagree O	Disagree O	Not Sure O	Agree O	Strongly Agree O
17.	I feel confident getting software up and running.	Strongly Disagree O	Disagree O	Not Sure O	Agree O	Strongly Agree O

18.	I feel confident handling a flash drive correctly.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○
19.	I feel confident installing a new program.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○
20.	I feel confident logging on to e-mail.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○
21.	I feel confident logging off from e-mail.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○
22.	I feel confident making a printed copy of a web page.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○
23.	I feel confident making corrections while word processing.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○
24.	I feel confident moving blocks of text while word processing.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○
25.	I feel confident naming data fields in a database.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○
26.	I feel confident naming the columns and rows in a spreadsheet.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○
27.	I feel confident organizing and managing files.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○
28.	I feel confident printing out files I've written while word processing.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○
29.	I feel confident printing out records in a database.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○

30.	I feel confident printing out the spreadsheet.	Strongly Disagree O	Disagree O	Not Sure O	Agree O	Strongly Agree O
31.	I feel confident reading mail messages on e-mail.	Strongly Disagree O	Disagree O	Not Sure O	Agree O	Strongly Agree O
32.	I feel confident recording an Internet site so that I can find it again.	Strongly Disagree O	Disagree O	Not Sure O	Agree O	Strongly Agree O
33.	I feel confident renaming a word-processing file to make a back-up copy.	Strongly Disagree O	Disagree O	Not Sure O	Agree O	Strongly Agree O
34.	I feel confident responding to messages on e-mail.	Strongly Disagree O	Disagree O	Not Sure O	Agree O	Strongly Agree O
35.	I feel confident responding privately to messages sent to more than one person on e-mail.	Strongly Disagree O	Disagree O	Not Sure O	Agree O	Strongly Agree O
36.	I feel confident saving a spreadsheet file.	Strongly Disagree O	Disagree O	Not Sure O	Agree O	Strongly Agree O
37.	I feel confident saving database files.	Strongly Disagree O	Disagree O	Not Sure O	Agree O	Strongly Agree O
38.	I feel confident saving documents I've written with a word-processing program.	Strongly Disagree O	Disagree O	Not Sure O	Agree O	Strongly Agree O
39.	I feel confident searching records in a database with specific terms.	Strongly Disagree O	Disagree O	Not Sure O	Agree O	Strongly Agree O
40.	I feel confident sending mail messages on e-mail.	Strongly Disagree O	Disagree O	Not Sure O	Agree O	Strongly Agree O
41.	I feel confident sending the same mail message to more than one person on e-mail.	Strongly Disagree O	Disagree O	Not Sure O	Agree O	Strongly Agree O

42.	I feel confident sorting records in a database.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○
43.	I feel confident using a browser to view sites on the Internet.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○
44.	I feel confident using a printed address to locate an Internet site.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○
45.	I feel confident using a word-processing program to write a letter or a report.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○
46.	I feel confident using the searching feature in a word processing program.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○
47.	I feel confident using the spell checker while word processing.	Strongly Disagree ○	Disagree ○	Not Sure ○	Agree ○	Strongly Agree ○

Appendix B. ICT Can do Checklist

ICT "can do" lists for teachers of foreign languages compiled by Graham Davies for the ICT4LT website

This document is designed for:

i. ICT trainers, to enable them to identify the strengths and weaknesses of teachers of foreign languages undergoing training in ICT;
ii. teachers of foreign languages, to enable them to assess the development of their own ICT skills, experience and understanding while they are undergoing training in ICT.

Teachers of foreign languages who wish to integrate ICT into their teaching need to be familiar with the *Windows* operating system and a range of different software applications. The following list includes selected generic applications and software applications specific to teaching and learning foreign languages. Under the heading for each application there is a range of essential tasks that the teacher should be able to carry out in order to feel comfortable working with the software – a so-called "can do" list. The applications and the tasks have been selected according to their usefulness for teaching foreign languages and are by no means exhaustive – all the software applications listed here offer much more.

How to use the lists:

i. Indicate your level of knowledge under each heading on a scale of 1 to 3.
ii. Indicate what you can do under each heading: place a tick in the box in the right hand column if you *can do* something; leave blank if you don't know how to do it.
iii. In addition, there are a number of essential "I understand" statements under selected applications. Please check these too.

Level of knowledge scale:

1 = Basic
2 = Intermediate
3 = Advanced

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Windows

Familiarity with the Microsoft *Windows* operating system is essential for all users of personal computers. There are different versions of *Windows*: Win95, Win98, WinME, Win2000, WinXP, WinNT. The following list is valid for most versions of *Windows* from Win95 onwards.

I would describe my ability to use *Windows* as (1-3)	
Now indicate what you can do: tick for "yes", leave blank for "no". I can:	
Use a mouse and I know when to right-click or left-click	
Open a Windows application – i.e. start a computer program under Windows	
Close a Windows application – i.e. terminate a computer program under Windows	
Use a Windows Menu Bar	
Maximise a window	
Minimise a window	
Restore a window	
Use scroll bars	
Open two or more Windows applications at the same time	
Use the Windows Task Bar to toggle between applications	
Use Windows *Explorer* to examine the contents of a disk and of different folders	
Use Windows *My Computer* to examine the contents of a disk and of different folders	
Move or copy a file from one folder to another	
Move or copy a file from one disk to another	
Find a file that I have mislaid	
Rename a file or folder	
Create a new folder	
Open *Notepad* and create and save a text file	
Format a floppy disk	
Format a CD-ROM	

Word

All teachers of Modern Foreign Languages should be familiar with a *word processor*. *Microsoft Word* is the commonest word processor for personal computers. The following list relates to *Microsoft Word* but all the tasks can be carried out using other types of word processors. For ideas on using word processors in the foreign languages classroom, see ICT4LT Module 1.3: http://www.ict4lt.org/en/en_mod1-3.htm

I would describe my ability to use a *word processor* as (1-3)	
Now indicate what you can do: tick for "yes", leave blank for "no". I can:	
Start *Word*	
Exit *Word*	
Open a new document	
Type at a reasonable speed	
Set paper size (e.g. A4) and margins	
Set paper orientation to portrait or landscape	
Change view from Normal to Print Layout and zoom in and out	
Insert page numbers into a document	
Insert headers and footers into a document	
Save a document that I have typed	
Print a document	
Open a document that I have previously saved	
Amend/add to a document that I have previously saved	
Save a document that I have amended or added to	
Insert new text	
Delete existing text	
Amend existing text	
Toggle the Insert key	
Toggle the Num Lock key	
Select text by clicking and dragging (i.e. highlight text)	
Copy and paste selected text within a document	
Cut and paste selected text within a document	
Search for text in a document	
Align text to the left, right or centre	
Change the font, size or colour of text	
Make text bold, italic or underlined	
Type non-standard characters: e.g. **é, ü, ß, ñ,** Ó	
Create a bulleted or numbered list	
Set and use tabs	
Create a table within a document	
Convert existing text to a table	
Convert a table to text	
Make hidden formatting characters visible or invisible	
Insert a picture into a document	
Insert an audio file into a document	
Copy and paste from another application, e.g. text from a Web browser, a table from a spreadsheet, a picture from image editing software	
Do a spell check	
Do a grammar check	
Use the thesaurus	
Use *Word's* Outline facility – and I can also send a *Word* Outline into *PowerPoint*.	
Set and use stylesheets	

Browsers

If you wish to use the World Wide Web you must be familiar with a *browser*. The following list relates mainly to Microsoft *Internet Explorer*, but all the tasks can be carried out using other browsers. See the following ICT4LT modules:
Module 1.5: http://www.ict4lt.org/en/en_mod1-5.htm
Module 2.3: http://www.ict4lt.org/en/en_mod2-3.htm
Module 3.3: http://www.ict4lt.org/en/en_mod3-3.htm

I would describe my ability to use a *browser* as (1-3)	
Now indicate what you can do: tick for "yes", leave blank for "no". I can:	
Start a browser	
Exit a browser	
Find a website by typing in its URL, e.g. http://www.ict4lt.org	
Bookmark a website	
Return to a website that I have bookmarked	
Navigate forwards and backwards within a website	
Jump to a new website via an active link	
Get back to a website from which a link was made	
Get back to a previously located website	
Copy a selection of text from a Web page into another application, e.g. *Word*, and save it	
Save a graphic or picture as a file on my computer	
Copy a graphic or picture into another application, e.g. *Adobe Photoshop*, and save it	
Print a Web page	
Save a Web page as a file on my computer	
Play an audio sequence stored at a website	
Save an audio sequence as a file on my computer	
Play a video sequence stored at a website	
Save a video sequence as a file on my computer	
Use a search engine to locate materials stored on the Web	
Delete temporary Internet files from my computer	
Download a document file (DOC or RTF) from a website	
Download a PDF file from a website	
Download an EXE file from a website	
Download a ZIP file from a website	
Unzip a downloaded ZIP file	
Remove "Web clutter" from my computer, e.g. using a package such as *Window Washer*	
Essential things that I understand:	
I understand that a new window sometimes opens when I link from one website to another	
I understand how frame-based websites work	
I understand that "cookies" need to be activated while I am browsing certain websites	
I understand that plug-ins, e.g. *Media Player*, *Flash*, *Acrobat*, are needed to access materials stored at certain websites	
I understand the advantages and limitations of the World Wide Web as a medium for delivering language courses	
I understand that computer viruses can be transmitted via hostile websites and that up-to-date anti-virus software is essential while I am browsing the Web	
I understand that my computer can be "hacked" while I am browsing the Web and that a firewall is essential	
I understand the implications of copyright and plagiarism when using materials downloaded from the Web: see Understanding Copyright	

Email software

If you wish to send and receive email you must be familiar with *email software*. There are a number of different applications available, e.g. *Microsoft Outlook* or *Eudora*, and some Internet Service Providers, e.g. CompuServe or AOL, provide their own email software. Email applications differ considerably in the way in which tasks are carried out, but you should be able to carry out the following tasks with most email applications. See ICT4LT Module 1.5, Section 14.1.1: http://www.ict4lt.org/en/en_mod1-5.htm#email

I would describe my ability to use *email software* as (1-3)	
Now indicate what you can do: tick for "yes", leave blank for "no". I can:	
Start an email software application	
Exit an email software application	
Set up a filing system for storing messages that I send and receive	
Set up my email software to send only plain text	
Compose and send a new message online, including the name and email address of the intended recipient, and a meaningful subject line	
Check for an incoming message	
Read an incoming message	
File a received message	
Delete an unwanted incoming message	
Print a received message	
Reply to a received message, including pasting of parts of the received message	
Compose a new message offline, including the name and email address of the intended recipient, and a meaningful subject line	
Send a message that I have composed offline	
Paste a previously composed word-processed text into a message that I am about to send	
Send a message to multiple recipients	
Forward a message to one or more recipients	
Open an incoming attachment and I know where it is filed on my computer	
Send an attachment to a message: a word-processed document, a picture, an HTML document, a sound file, etc	
Set up a signature to be attached to messages that I compose	
Set up and maintain my email address book	
Set up and send group messages	
Join a discussion list	
Leave a discussion list	
Temporarily suspend mail sent to me via a discussion list (e.g. while on holiday)	
Resume receiving mail from a discussion list	
Essential things that I understand:	
I understand basic "Netiquette"	
I understand why I should never open an unidentified attachment	
I understand that computer viruses can be transmitted via email and that up-to-date anti-virus software is essential while I am receiving and sending messages	
I understand that my computer can be "hacked" while I am online and that a firewall is essential	
I understand the implications of copyright and plagiarism when using materials contained in other people's emails: see Understanding Copyright	

PowerPoint

Presentation software is playing an increasing important role in the foreign languages classroom, e.g. for presenting points of grammar, vocabulary etc, often in conjunction with interactive whiteboards. Microsoft *PowerPoint* is the most widely used presentation software application. See ICT4LT Module 1.3, Section 7: http://www.ict4lt.org/en/en_mod1-3.htm#ppwc

I would describe my ability to use *PowerPoint* as (1-3)	
Now indicate what you can do: tick for "yes", leave blank for "no". I can:	
Start *PowerPoint*	
Exit *PowerPoint*	
Start creating a new (blank) presentation	
Create a title slide for a presentation	
Add new slides to a presentation	
Change the colour scheme (background, text, etc) of a presentation	
Add, delete and amend text in a slide	
Change the font, size or colour of text in a slide	
Make text in a slide italic or bold	
Align text to the left, right or centre of a slide	
Add a date, footer and slide numbers to a presentation	
Apply a new presentation design	
Save a presentation that I have created	
Edit a presentation that I have previously created	
Save a presentation that I have previously created	
Run a presentation	
Print a presentation in different formats	
Add transition and animation effects to a presentation	
Remove transition and animation effects from a presentation	
Sort the slides of a presentation into a different order	
Insert a picture into a slide	
Insert a sound file into a slide	
Insert a video file into a slide	
Import a Word Outline into *PowerPoint*	
Essential things that I understand:	
I understand that certain colour combinations in slides must be avoided in order to make slides legible: e.g. avoid red/green.	
I understand that fonts must be of a certain size in order to be legible – at least 24-point.	

Excel

Spreadsheets are mainly the province of accountants, but language teachers often find them useful for recording marks and comments, generating and sorting class lists, adding up marks and calculating averages, percentages etc: see ICT4LT Module 4.1, Section 4.2: http://www.ict4lt.org/en/en_mod4-1.htm#4.2. The following list relates to Microsoft *Excel*, but all the tasks can be carried out using other spreadsheet software.

I would describe my ability to use *Excel* as (1-3)	
Now indicate what you can do: tick for "yes", leave blank for "no". I can:	
Start *Excel*	
Exit *Excel*	
Open a new spreadsheet	
Set paper size (e.g. A4) and margins	
Set paper orientation to portrait or landscape	
Insert page numbers into a spreadsheet	
Insert headers and footers into a spreadsheet	
Save a spreadsheet that I have created	
Print a spreadsheet	
Print a selected area of a spreadsheet	
Open a spreadsheet that I have previously saved	
Amend/add to a spreadsheet that I have previously saved	
Save a spreadsheet that I have amended or added to	
Insert new text or figures into blank cells	
Amend the contents of completed cells	
Insert new columns and rows	
Insert new cells into a set of completed cells	
Delete the contents of completed cells	
Select cells within a spreadsheet	
Delete selected cells	
Delete columns and rows	
Copy and paste selected cells within a spreadsheet	
Cut and paste selected cells within a spreadsheet	
Format cells (number of decimal places, percentage, etc.)	
Search for text or figures in a spreadsheet	
Align text or figures to the left, right and centre of cells	
Change the font, size or colour of text or figures	
Make text or figures bold, italic or underlined	
Sort a column into order, e.g. numerical or alphabetical	
Sort a set of cells into order, based on a selected column	
Add up a column or row of figures	
Calculate an average of a column or row of figures	
Convert a set of figures into a graph or chart	
Copy and paste data from another application into a spreadsheet	
Copy and paste a set of cells from *Excel* into a word processor	

Anti-virus and security software

Everyone who uses a computer should install *anti-virus software* on their system and update it regularly. It is also essential to install *security software* on your system. If you access the Internet via a computer in a public or commercial organisation your ICT services department has probably installed anti-virus software and other security software, but if you use a computer at home then you must install the software yourself. See http://www.camsoftpartners.co.uk/bugs.htm, which contains further information about viruses and virus threats and the software packages mentioned in the table below.

I would describe my ability to use *anti-virus and security software* as (1-3)	
Now indicate what you can do: tick for "yes", leave blank for "no". I can:	
Install anti-virus software on my computer, e.g. *Norton Anti-Virus*	
Configure my anti-virus software	
Update my anti-virus data files	
Carry out a system check to ensure that there are no viruses on my computer	
Access an anti-virus website to find information about known viruses and new virus threats	
Install a firewall on my computer, e.g. *ZoneAlarm Pro*	
Configure my firewall software	
Install email filtering software on my computer, e.g. *MailWasher Pro*	
Configure my email filtering software	
Install anti-adware/spyware software on my computer, e.g. *SpyBot* or *Spy Sweeper*	
Configure my anti-adware/spyware software	
Essential things that I understand:	
I understand that it is essential to update my anti-virus files regularly	
I understand the term “hoax virus”, and I know how to avoid being tricked by people who send me information about hoax viruses	
I understand that computer viruses can be transmitted via hostile websites and that up-to-date anti-virus software is essential while I am browsing the Web	
I understand that my computer can be “hacked” while I am browsing the Web and that a firewall is essential	
I understand the term “spam”, and I know how to avoid being “spammed”	
I understand the term “adware”, and I know how to remove it from my computer	
I understand the term “spyware”, and I know how to remove it from my computer	
I understand that my computer stores lots of unnecessary files (temporary Internet files, cookies, etc) while I am browsing the Web, and I know how to remove such files, e.g. using a package such as *Window Washer*	

Web authoring software

Web authoring packages such as *Dreamweaver* or *Front Page* are used to create Web pages at publicly accessible websites, or offline for use on a local server or intranet. See ICT4LT Module 3.3: http://www.ict4lt.org/en/en_mod3-3.htm

I would describe my ability to use a Web authoring package as (1-3)	
Now indicate what you can do: tick for "yes", leave blank for "no". I can:	
Set up a new Web page using a Web authoring package	
Set the background colour for the page	
Set font sizes and colours	
Set up a hyperlink in a Web page	
Set up a link to an email address in a Web page	
Insert a picture into a Web page	
Insert a sound file into a Web page	
Insert a video file into a Web page	
Save a Web page onto my computer's hard disk	
Upload a Web page that I have created to my website	
Write and edit a page written in HTML using an HTML text editor	
Create an interactive exercise on a Web page	
Write and edit a CGI script (advanced learners only!)	
Essential things that I understand:	
I know what the abbreviation URL stands for and I understand the function of a URL	
I know what the abbreviation HTML stands for	
I know what a *hosting service* is	
I know how to register a domain name for a personal website	
I understand the concepts of *client* and *server*	
I know what the abbreviation FTP stands for and I understand the function of an FTP facility	

CALL authoring software

There are numerous CALL authoring packages, some of which are designed for creating interactive exercises in an offline environment and some of which are designed for creating interactive exercises in an online Web environment. See the following ICT4LT modules:
Module 2.5: http://www.ict4lt.org/en/en_mod2-5.htm
Module 3.2: http://www.ict4lt.org/en/en_mod3-2.htm
Module 4.1: http://www.ict4lt.org/en/en_mod4-1.htm

I would describe my ability to use CALL authoring software as (1-3)	
Now indicate what you can do: tick for "yes", leave blank for "no". I can:	
Create a true/false exercise	
Create a multiple-choice exercise in which only one of the distractors is correct	
Create a multiple-choice exercise in which more than one distractor is correct	
Create a gap-filling exercise with whole words or phrases blanked out	
Create a gap-filling exercise with parts of words blanked out	
Create a Cloze exercise with every nth word blanked out	
Create a "total Cloze" text reconstruction exercise	
Create a Pelmanism (memory) exercise	
Create a matching exercise: antonyms, synonyms, translations, or two halves of sentences	
Create a drag-and-drop exercise	
Insert a picture (clipart, photo, etc) into an exercise	
Insert an audio file into an exercise	
Insert a video file into an exercise	
Create a listen / respond / playback exercise (e.g. a language lab or role-play exercise). See Section 5.3 of Module 3.2	
Create a sentence reordering exercise	
Create a word unjumbling exercise	
Create a line reordering or dialogue reordering exercise	
Create a crossword puzzle	
Create a free text entry exercise (see Section 5.9 of Module 3.2)	
Create a wordsearch exercise	
Create a branching dialogue exercise (see Section 5.10 of Module 3.2)	
Use a text manipulation authoring package	
Essential things that I understand:	
I understand the difference between a gap-filling exercise and a Cloze exercise	
I understand the essential differences between authoring for the Web and authoring for use offline	
I understand the importance of good feedback in interactive exercises	
I understand the difference between *intrinsic* and *extrinsic* feedback	

Text reconstruction software

Text reconstruction software, also referred to as text manipulation software, has been popular with language teachers for many years. Wida Software's *Storyboard* (part of *The Authoring Suite*) and Camsoft's *Fun with Texts* both fall into the category of text reconstruction software. See ICT4LT Module 1.4, Section 8: http://www.ict4lt.org/en/en_mod1-4.htm#textmanip

I would describe my ability to use text reconstruction software as (1-3)	
Now indicate what you can do: tick for "yes", leave blank for "no". I can:	
Use an authoring package for creating text reconstruction exercises	
Create a new text with a text reconstruction authoring package	
Paste a text from another sources (e.g. a word-processor or the Web) into a text reconstruction authoring package	
Insert a picture (clipart, photo, etc) into an exercise	
Insert an audio file into an exercise	
Insert a video file into an exercise	
Essential things that I understand:	
I understand that text manipulation software is designed to enable the creation of a number of different activities from one text	

CD-ROMs and DVDs

See ICT4LT Module 2.2: http://www.ict4lt.org/en/en_mod2-2.htm

I would describe my familiarity with using CD-ROMs and DVDs as (1-3)	
Now indicate what you can do: tick for "yes", leave blank for "no". I can:	
Insert a CD-ROM into the CD-ROM drive	
Start a program direct from a CD-ROM drive	
Install a program from a CD-ROM onto the hard disk of my computer	
Insert a DVD-ROM into the DVD-ROM drive	
Start a program direct from a DVD-ROM drive	
Install a program from a DVD-ROM onto the hard disk of my computer	
Insert and run a DVD-Video disc	
Copy files and folders from my computer's hard drive onto CD-ROM or DVD-ROM	
Copy files and folders from CD-ROM or DVD-ROM onto my computer's hard drive	
Essential things that I understand:	
I understand the differences between a CD-ROM disc, a CD-Audio disc, a DVD-ROM disc and a DVD-Video disc	

CD-Audio discs

Standard CD-Audio discs can be played on modern multimedia computer systems in the same way as they can be played on hifi systems. It is also possible to convert sound files that have been downloaded from the Web into CD-Audio format and to store them on an audio CD that can be played on standard hifi systems. See ICT4LT Module 2.2: http://www.ict4lt.org/en/en_mod2-2.htm

I would describe my familiarity with using CD-Audio discs on computers as (1-3)	
Now indicate what you can do: tick for "yes", leave blank for "no". I can:	
Insert an audio CD into my computer and play it	
Copy a track from an audio CD onto my computer, e.g. using *iTunes*	
Create an audio CD from a set of MP3 files stored on my computer's hard disk	
Essential things that I understand:	
I understand the differences between a CD-ROM disc, a CD-Audio disc, a DVD-ROM disc and a DVD-Video disc	

DVD-Video discs

DVD-Video discs can be played on modern multimedia computer systems in the same way as they can be played on standard DVD playback systems, i.e. the kind that you normally connect to a TV set. See ICT4LT Module 2.2: http://www.ict4lt.org/en/en_mod2-2.htm

I would describe my familiarity with using DVD-Video discs on computers as (1-3)	
Now indicate what you can do: tick for "yes", leave blank for "no". I can:	
Insert a DVD-Video (DVD-Movie) disc into my computer and play it	
Essential things that I understand:	
I understand the differences between a CD-ROM disc, a CD-Audio disc, a DVD-ROM disc and a DVD-Video disc	

Image editing software

See ICT4LT Module 2.2, Section 2.2.3.1: http://www.ict4lt.org/en/en_mod2-2.htm#imageed

I would describe my ability to use image editing software as (1-3)	
Now indicate what you can do: tick for "yes", leave blank for "no". I can:	
Scan a photograph and paste it into an image editing package	
Download an image from the Web and paste it into an image editing package	
Resize an image and save it	
Change the brightness of an image and save it	
Change the contrast of an image and save it	
Essential things that I understand:	
I understand the differences between the following image formats: JPG/JPEG, GIF, TIF/TIFF, BMP	
I understand the concept of different layers of an image	

Audio recording and editing software

See ICT4LT Module 2.2, Section 2.2.3.3: http://www.ict4lt.org/en/en_mod2-2.htm#sounded

I would describe my ability to use audio editing software as (1-3)	
Now indicate what you can do: tick for "yes", leave blank for "no". I can:	
Make a sound recording using audio editing software, e.g. *Audacity*, and save it on my computer	
Download a sound recording from the Web and edit it using audio editing software on my computer	
Upload a sound recording from my computer to the Web	
Create an audio CD made up of different sound recordings that I have made or edited	
Create a CD-ROM made up of different sound recordings that I have made or edited	
Copy a recording from a portable recorder onto my computer	
Essential things that I understand:	
I understand the differences between the following audio file formats: WAV, MP3 and RM	
I understand the concept of *streaming audio*	
I know what a *podcast* is	
I know what the abbreviation Hz means and why this is important for making high-quality audio recordings	

Video recording and editing software

See ICT4LT Module 2.2, Section 2.2.3.4: http://www.ict4lt.org/en/en_mod2-2.htm#videoed

I would describe my ability to use video editing software as (1-3)	
Now indicate what you can do: tick for "yes", leave blank for "no". I can:	
Use a camcorder to make a video recording	
Capture a video recording from a camcorder using video editing software, e.g. *Windows Movie Maker*	
Save an edited video recording on my computer	
Save an edited video recording to a CD-ROM or DVD	
Upload a video recording to the Web, e.g. my own website, my blog or YouTube	
Convert a video recording from one format (e.g. AVI) to another, e.g. (MPG)	
Save a streaming video (e.g. a YouTube video clip) on my computer	
Essential things that I understand:	
I understand the differences between the following video file formats: MPG/MPEG, AVI, WMV, ASF, RM, FLV	
I understand the concept of *streaming video*	

Reference tools: electronic dictionaries and encyclopaedias

Electronic dictionaries are useful mainly as memory-joggers and should be used in conjunction with a concordancer (see below) or a context dictionary. *Encyclopaedias* are not only useful for checking facts but also as *corpora*. The search facilities provided by most encyclopaedias enable examples of words in context to be found very quickly.

I would describe my ability to use *electronic reference tools* as (1-3)	
Now indicate what you can do: tick for "yes", leave blank for "no". I can:	
Use an electronic dictionary on CD-ROM	
Find an electronic dictionary on the Web	
Look up a word in an electronic dictionary	
Paste the definition of a word that I have looked up into another application, e.g. *Word*	

Concordancers

Concordancers are extremely valuable tools for the teacher of reign languages. The teacher can use a concordancer to find examples of authentic usage to (a) demonstrate a point of grammar, typical collocations, etc, (b) generate exercises based on authentic texts. Students can use concordancers to work out rules of grammar and usage for themselves by searching for key words in context. Concordancers are also used extensively for creating glossaries and dictionaries – a useful task for learners of foreign languages. See ICT4LT Module 2.4 and Module 3.4:
http://www.ict4lt.org/en/en_mod2-4.htm
http://www.ict4lt.org/en/en_mod3-4.htm

I would describe my ability to use a concordancer as (1-3)	
Now indicate what you can do: tick for "yes", leave blank for "no". I can:	
Search a corpus for a single word	
Search a corpus for a phrase	
Search a corpus for a word used in combination with another word	
Produce a student handout from the results obtained from a search in a corpus	
Create a gap-filling exercise on a specific point of grammar or vocabulary from the results obtained from a search in a corpus	
Essential things that I understand:	
I understand the concept of a *concordancing program* or *concordancer*	
I understand the concept of a *corpus*	
I understand the concept of a KWIC (Key Word In Context) search	

Translation software

Teachers of foreign languages tend not to be aware of the opportunities offered to students wishing to follow a career in translating, and they are even less aware of how ICT has revolutionised the translation industry. Unfortunately, "translation" has become a dirty word in recent years, but translating – alongside interpreting – is one of the most demanded skills in the language professions. Some types of *translation software* attempt to do the whole job, e.g. *Babel Fish*: http://babelfish.yahoo.com. *Babel Fish* can be handy for extracting the gist of a text in an unfamiliar language and it can be used with students to (a) demonstrate the limitations of translation software; (b) make students more linguistically aware, e.g. of the relationship between grammar and semantics. Other types of translation software, e.g. *translation memory packages*, are mainly used as tools by professional translators to enable them to work more quickly. See ICT4LT Module 3.5, Section 4: http://www.ict4lt.org/en/en_mod3-5.htm#machinetrans

I would describe my ability to use translation software as (1-3)	
Now indicate what you can do: tick for "yes", leave blank for "no". I can:	
Copy and paste a text into an online translation package (e.g. *Babel Fish*) and then copy and paste the translated text into another document (e.g. *Word*)	
Essential things that I understand:	
I understand that translation software cannot be relied upon to produce a completely accurate translation	

Using a VLE: Moodle

This list has been compiled by **Seth Dickens**, with updates by **Mary Cooch**. Many teachers of Modern Foreign Languages will never have used a VLE such as **Moodle** and as such may be a little intimidated by it to begin with. There is no need to worry. However, many of the functions of a VLE are based around a simple WYSIWYG editor (What You See Is What You Get) and as such are easily picked up by teachers with a little experience in using programs like Microsoft *Word* etc. The following list relates to Moodle v1.9, but is also relevant to all other versions of Moodle and also many other VLEs. See ICT4LT Module 1.5, Section 8: http://www.ict4lt.org/en/en_mod1-5.htm#anchorvlangschool

I would describe my ability to use a VLE like "Moodle" as (1-3)	
Now indicate what you can do: tick for "yes", leave blank for "no". I can:	
Administrative functions and settings	
Log into Moodle	
Log out of Moodle	
Enrol myself as a student in a course	
Un-enrol myself from a course where I was a student	
Set / change my email display settings in my profile	
Set / change my email digest type in my profile	
Write / change my personal description in my profile	
Add / change my profile picture / photo	
Save changes I have made to my profile	
Forums and Online Communication	
Read a forum post	
Reply to a forum post	
Start a new forum discussion / post	
Read and respond to a Moodle message	
Move an entire discussion to a different forum (when I am a teacher in the course)	
Split a discussion into two parts (when I am a teacher in the course)	
Delete or edit accidental or inappropriate forum posts (when I am a teacher in the course)	
Course Authoring and Editing – the Basics	
Turn the editing tools on or off	
Set a password (enrolment key) on my course to restrict access.	
Change the number of sections on my course page	
Add a Web page resource to give instructions or other material to my students	
Change how a Web page resource appears to my students (e.g. new window, same window, etc.)	
Add a label resource to my Moodle course to make it easier for my students to navigate around my course	
Add a link resource to an external website for my students to listen to, read or watch	
Add a link resource to a file stored on my Moodle	
Add a folder of resources using the Display a directory function	
Add a forum	
Edit the settings for a resource or activity I have previously added	

Delete a resource or activity I have previously added	
Show or hide a resource or activity from students which I have previously added	
Move a resource, activity or whole topic section to a different part of the course	
Hide or highlight a topic section	
Course Authoring and Editing – Intermediate	
Add an activity such as chat, wiki or choice	
Set up an assignment so my students can send me work	
Enter marks and feedback in the gradebook	
Change the markscheme from the default 1-100 to a scale of my own choice	
Use “groups” to filter my classes in the gradebook	
Embed a movie or mp3 file in a Webpage resource using the multimedia filters	
Use a text page resource to embed code from external sites like Google maps	
Essential things that I understand:	
It is better to navigate around Moodle using the “breadcrumbs” trail at the top of the Web page than using the back and forward buttons in my Web browser	
When writing longer forum postings or information to students it is better to type in*to Notepad*, then paste into Moodle to avoid losing work if the internet connection is lost.	
When setting up resources for students it is better to make them open in a new window to avoid the student accidentally losing Moodle when closing the resource with the X	
Deleting an uploaded resource from the course page only deletes the link. It is still available in the course files for me to reuse another time	
Where using images from the web it is better to save and upload them to my Moodle than copy and paste them straight into my course to avoid losing if the site is down.	

Understanding copyright

This list has been compiled by Liliana Cuesta, Universidad de La Sabana, Colombia. See the ICT4LT **General guidelines on copyright** at: http://www.ict4lt.org/en/en_copyright.htm

I would describe my understanding of copyright issues as (1-3)	
Essential things that I understand:	
I know what the term copyright means	
I understand what is meant by intellectual property rights and the infringement of copyright works	
I understand the concept of “fair use” or “fair dealing”	
I understand the differences between various types of copyright licences	
I know what Creative Commons is	
I am aware of copyright legislation in my country	
I am aware of the legislation regarding the publication of materials on the Internet	
I know what copyright clearance means	
I always follow the necessary procedures to request clearance of copyright materials	
I always check the Terms of Use in the Web pages that I use	
I know what “webwhacking” implies	
I understand the meaning of the term “communication to the public”	
I understand the meaning and implications of the term “deep linking”	
I am aware of the different manifestations of plagiarism	
I understand the existing copyright regulations relating to printed materials	
I am aware of the copyright restrictions on audio and video materials	
I am aware of the copyright regulations of the YouTube website	
I understand the copyright restrictions on using images	
I know what a copyright bounty hunter is	
I am aware of the three kinds of moral rights relating to original works	
I understand the implications of using third-party materials	
I am aware of the Acceptable Use Policy of my institution	
I know when I should contact a copyright clearance centre	
I know what is not protected by copyright	
I know how to write a copyright notice relating to my own works	

Appendix C. Interview Questions

4. What do you think about using technology for teaching and learning English?

5. What was difficult (problematic) for you about the online educational technology course?

6. Are you planning to use some of this software when you become a teacher? Why/ why not?

Appendix.D. Online Educational Technology Course outline and syllabus

Online Educational Technology Course outline and syllabus

Educational Technology for English Language Teachers

www.moodle.emsalates.com

Course Description**:** This course introduces the selection and use of technological resources in the language classroom with special emphasis on foreign language instruction. Students will learn how to integrate appropriate technologies into their classroom instruction to enhance language learning and language performance. The course will also provide pre-service teachers with knowledge of and hands-on experience with integrating technology into classroom instructional activities.

Course objectives: 'Educational Technology for English Language Teachers' is an introductory course designed to train pre-service English Language Teachers in the possibilities and practical applications of new media and new technologies for classroom and individualized instruction. The Internet in English language teaching, the evaluation of web pages and the use of Web 2,0 tools will also be covered in the course. The course will conclude with individualized curriculum integration projects, each designed to create 'classroom ready' instructional technology tools for course participants. The course will seek to balance sound educational theory with practical hands-on use of instructional technology tools.

Course requirements**:** Students should have access to the Internet, should know the basics of word processing, e-mail use and WWW navigation.

Students were also given the detailed course outline on the website as follows:

Course Outline

Week	Topic	Necessary documents or tools
	Introduction Participants will get acquainted with the course and 'Moodle' Online Classrooms 'MOODLE' learning platform MEB perfomance documents Terms about Technology	**Book chapter:** Technology & Teaching English Language Learners: Introduction (Butler, Pascoe &Wiburg (2003) **Article** Robb, Thomas.(2004)Moodle: A Virtual Learning Environment for the Rest of Us. Tesl-Ej. Vol.8. No.2 **Article:** Nguyen, L. (2008) Technology-Enhanced EFL Syllabus Design and Materials Development. Retrieved from: **http://www.ccsenet.org/journal/index.php/elt/article/viewFile/465/475**
	The Internet How to use the Internet Activities on a directory search of the Internet Searching the Internet with kewyords and URL	**Articles:** Schlager, M., P. Schank. (1997). *TAPPED IN: A new on-line teacher community concept for the next generation of The Internet technology*. CSCL '97 Proceedings.
	The Internet for Language Teachers Useful sites for teaching English Evaluation of ELT web pages Skype, Facebook, Twitter in EFL	Joinson, A. (2008). *'Looking at', 'Looking up' or 'Keeping up with' people? Motives and uses of Facebook*. CHI 2008 Proceedings – Online Social Networks.
	Blogs and Blogging in Teaching Blogger Necessary information to about blogging How to use blogs to teach	**Article:** Kavaliauskiene, G., L. Anusiene, V. Mazeikiene. (2006). *Webblogging: Innovation for communication in English Class*. Electronic Journal of Foreign Language Teaching; 3*(2)*, 220-233. Students will start their own blog and send their first post on the topic ' How is it to be a 4th year student at university?' Ss will embed their further work with Web 2.0 tools on this blog and put their link on the class blog (http://www.ide401.blogspot.com/)
	The use of Wikis in EFL classrooms How to use wiki in EFL	**Article** Parker, K., J. Chao. (2007). *Wiki as a teaching tool.* Interdisciplinary Journal of Knowledge and Learning Objects; 3, 57-71. Ss will create a wiki for teaching a skill and put the link on their blog
	Digital Storytelling How to use storybird	Ss will write a story by using Storybird and embed it on their blog
	Podcasting in Teaching Audacity site and download Audacity tutorial Hands on Activity ' Creating a podcast for EFL class'	**Link:** **http://podcasterpaul.wikispaces.com/** **Resources+for++Teachers** **http://www.teachingenglish.org.uk/think** **/articles/podcasting-elt** Ss will create a podcast on ' the use of podcasts in teaching English' and embed it on their blog.

	Using web 2.0 tools Voki Wordle	Ss will create an avatar by using Voki and it will make a short speech introducing themselves. The Voki will be embedded on their blog. SS will create a wordle on any subject and display it on their blog.
	Web 2.0 workshop	Working in groups on a free software and introduce it in the class Glogster .http://edu.glogster.com/http://www.teachertrainingvideos.com/glogster/index.html (training video) VoiceThread . http://VoiceThread.com/ http://edte.ch/blog/2010/01/22/video-of-my-VoiceThread-presentation/VoiceThread video http://www.teachertrainingvideos.com/VoiceThread/index.html (video tutorial) http://www.teachertrainingvideos.com/englishCentral/index.html Xtranormal http://www.xtranormal.com Animato .http://animoto.com/ Wallwisher http://www.wallwisher.com/ http://www.teachertrainingvideos.com/wall/index.html Wallwisher training video
	Integrating Web 2.0 into teaching English Sample lesson plan	Preparing a lesson plan by making use of free software for teaching a specific skill (writing, reading, speaking, vocabulary, listening) Sending the lesson plan to the instructor through e-mail.

Appendix E. Language Learning Website Evaluation Form

Language Learning Website Review Form

Site Information	
Title	
URL	
Target Audience	
Language Activities/Skills	☐ Reading ☐ Writing ☐ Listening ☐ Speaking ☐ Grammar ☐ Vocabulary ☐ Other - Please specify:

Site Description

Site Evaluation
1. Purpose: Is the purpose clear? Is the content in line with the purpose? Is the Website appropriate for its targeted learner? Very Unsatisfactory | Unsatisfactory | Uncertain | Satisfactory | Very Satisfactory
2. Accuracy: Is the content accurate? Are spelling and grammar accurate? Very Unsatisfactory | Unsatisfactory | Uncertain | Satisfactory | Very Satisfactory
3. Currency: Is the Website current? Is the Website updated regularly? Very Unsatisfactory | Unsatisfactory | Uncertain | Satisfactory | Very Satisfactory
4. Authority: Is there information on the author? Is the author well-recognized for his or her work? Very Unsatisfactory | Unsatisfactory | Uncertain | Satisfactory | Very Satisfactory

5. Loading speed: Does the Website download fast? Do the content pages download efficiently?

Very Unsatisfactory	Unsatisfactory	Uncertain	Satisfactory	Very Satisfactory

6. Usefulness: Does the Website provide useful information? Are the language activities or tasks useful?

Very Unsatisfactory	Unsatisfactory	Uncertain	Satisfactory	Very Satisfactory

7. Organization: Is the Website well organised and presented? Is the Website interesting to look at and explore? Are screen displays effective?

Very Unsatisfactory	Unsatisfactory	Uncertain	Satisfactory	Very Satisfactory

8. Navigation: Is the Website easy to navigate? Are on-screen instructions easy to follow? Is it easy to retrieve information? Are hyperlinks given properly?

Very Unsatisfactory	Unsatisfactory	Uncertain	Satisfactory	Very Satisfactory

9. Reliability: Is the Website free of bugs and breaks? Is the Website free of dead links?

Very Unsatisfactory	Unsatisfactory	Uncertain	Satisfactory	Very Satisfactory

10. Authenticity: Are the learning materials authentic? Are authentic materials provided in appropriate contexts?

Very Unsatisfactory	Unsatisfactory	Uncertain	Satisfactory	Very Satisfactory

11. Interactivity: Is the Website interactive? Are methods for user input effectively employed?

Very Unsatisfactory	Unsatisfactory	Uncertain	Satisfactory	Very Satisfactory

12. Feedback: Is feedback on learner responses encouraging? Is error handling meaningful and helpful?

Very Unsatisfactory	Unsatisfactory	Uncertain	Satisfactory	Very Satisfactory

13. Multimedia: Does the Website make effective use of graphics, sound and colour? Is the level of audio quality, the scale of graphics or video display appropriate for language learning?

Very Unsatisfactory	Unsatisfactory	Uncertain	Satisfactory	Very Satisfactory

14. Communication: Can the user communicate with real people on-line through the Web site? Is on-line help available?

Very Unsatisfactory	Unsatisfactory	Uncertain	Satisfactory	Very Satisfactory

15. Integration: Can the learning materials be integrated into a curriculum? Does the content fit with curricular goals?

Very Unsatisfactory	Unsatisfactory	Uncertain	Satisfactory	Very Satisfactory

Overall Rating

_____ 1 Very Poor (Not recommended at all)
2 Poor (Not appropriate)
3 Adequate (Acceptable with reservation)
_____ 4 Good (Appropriate for use)
5 Excellent (Highly recommended)

Additional Comments

Reviewer		**Date reviewed**	

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EDUCATION

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2003- 2011 Mersin University, Department of English Language Teaching, Mersin.

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Lecturer: Taught English to Turkish students who have elemenatary and intermediate levels of English Language Proficiency

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1996-1997 Büyük Kolej, Ankara.
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PUBLICATIONS

Conferences & Proceedings (International)

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Conferences & Proceedings (National)

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Other Publications

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Özdemir A, E. " Modern Toplumda bir İpekböcegi", " İçel Sanat Klubü Dergisi , Mersin: November-December 2006.

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