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EXPORING EFL INSTRUCTORS' EXPERIENCES WITH DISTANCE EDUCATION

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Exporing EFL Instructors' Experiences with Distance Education

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Doctoral Dissertation

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Doktora tezi olarak sunduğum "Exporing EFL Instructors' Experiences with Distance Education" adlı çalışmanın, tarafımdan, bilimsel ahlak ve değerlere aykırı düşecek bir yardıma başvurmaksızın yazıldığını ve yararlandığım eserlerin kaynakçada gösterilenlerden oluştuğunu, bunlara atıf yaparak yararlanmış olduğumu belirtir ve bunu onurumla doğrularım.

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Foreword

Times are changing for sure. Lifelong learning is quickly becoming the norm in many countries. Language learning has become a necessity for a more globalized world, both for educational and professional reasons. The status of English is well established as the language of science, commerce and international communication. On the other hand, educational establishments and universities are in a competition to catch up with the ever-increasing pace of this change at the societal, technological and financial levels among many others. Teacher training and education have to take into account how teaching professionals will respond to these changes and what strategies they will develop in order to provide quality education to the learners with diverse needs. The advancements in the technology have allowed distance education to prosper in many parts of the world. My attempt to understand the many factors contributing to quality English language teaching via distance education is the driving force behind this study.

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Öz

Yabancı Dil Olarak İngilizce Okutmanlarının Uzaktan Eğitimle Deneyimlerinin Araştırılması

Türkiye'deki üniversite düzeyinde İngilizce Öğretimi oldukça sık araştırılmış bir alandır. Zorunlu İngilizce dersleri de bu geniş araştırma alanının bir parçasıdır. Zorunlu İngilizce dersine kayıtlı yüksek öğrenci sayısı, personel yetersizliği, aşırı ders yükü ve kampüsler arasındaki uzun mesafeler bu derslerin sunulmasındaki bazı zorluklardır. Uzaktan eğitim bu sorunlara yeni bir çözüm olarak pek çok üniversite tarafından uygulanmaktadır. Fakat İngilizce okutmanlarının yüz yüze eğitim vermek üzere eğitilmiş olması bu yeni yöntemle başarılı bir eğitim vermenin önünde pedagojik ve teknik zorluklar oluşturmaktadır. İlgili becerilere yönelik bir eğitime ve arkasından gelen desteğe çok büyük ihtiyaç duyulmaktadır.

Bu karma yöntem araştırma çalışması uzaktan İngilizce öğretimi için hizmet içi eğitim sürecinin ve daha sonrasındaki destek uygulamalarının araştırılmasından oluşmaktadır. Araştırma evreni Türkiye'de üniversitelerde çalışan İngilizce okutmanlarıdır. Örneklem olarak Türkiye'de üç üniversite belirlenmiştir. Veriler bir anket ve iki yarı-yapılandırılmış mülakat ile toplanmıştır. Anket Bilgi Teknolojileri bilgisi hakkında algı, kişisel ve profesyonel amaçlı bilgisayar kullanımı, uzaktan eğitimin değeri, eğitim unsurlarının ve yöntemlerinin önemi ve desteğin bulunurluğu konusunda maddeler içermektedir. Mülakatlar uzaktan eğitimin zorlukları ve avantajları ile eğitim süreci konusunda derinlemesine bilgi toplamayı hedeflemiştir. Üç üniversiteden toplam 113 okutman anket çalışmasına katılırken mülakatlara 17 okutman ve 4 yönetici katılmıştır. Veriler SPSS ve NVivo veri paketleri

kullanılarak analiz edilmiştir. Anketler için istatistiksel analiz ve mülakatlar için tematik analiz yöntemleri kullanılmıştır.

Sonuçlara göre, daha önce uzaktan eğitimde öğrencilik deneyimi olan okutmanların uzaktan eğitim algıları daha yüksek bulunmuştur. Mülakatlardaki verilere göre eğitim sadece çevirimiçi ortamdaki temel teknik kısımları içerdiğinden çoğu katılımcı eğitimi yetersiz bulmuştur. Uzaktan eğitimde derslerin sunulması kararı üst yönetim tarafından alınmış ve okutmanlar veya yöneticilerden bu konuda herhangi bir görüş alınmamıştır. İlk eğitimi müteakip devam eğitimleri sağlanmamış ve genellikle sadece meslektaşlar tarafından çok az destek sunulmuştur. Uzaktan eğitim pedagojisini özellikle Araştırma Topluluğu ve farklı etkileşim türlerini içeren bir eğitime büyük bir ihtiyaç olduğu tespit edilmiştir.

Anahtar kelimeler: Çevrimiçi öğrenme, İngiliz Dili Eğitimi, öğretmen eğitimi, uzaktan eğitim.

Abstract

Exporing EFL Instructors' Experiences with Distance Education

English Language Teaching at Turkish tertiary education has been widely studied. The compulsory English courses is one of the main areas in this wide array of research. The high number of students registered for the compulsory English courses, shortage of staff, excessive teaching hours and long distances between campuses are some of the challenges in the provision of these courses. Distance education medium offers a novel solution to these problems adopted by many universities. However, English language instructors are trained to teach face to face which brings pedagogical and technical difficulties in successfully adopting this new medium. Thus, there is an immense demand for training on the relevant skills followed by appropriate support.

This mixed-methods research study was an investigation of the training process for teaching English via distance and the subsequent support measures in place. The research universe was English language instructors working at Turkish universities. The study was carried out at three Turkish universities. The data were collected through a questionnaire and two semi-structured interviews. The questionnaire included items on perception of Information and Communications Technology (ICT) competence, personal and professional computer use, perceived value of distance education, importance of training elements and training methods and availability of support. The interviews aimed to collect in-depth information about the challenges and rewards of teaching online and the training process. A total of 113 instructors at three universities participated in the survey research whereas 4 directors and 17 instructors were selected for interviews. Data were analysed using Statistics Package for Social Sciences (SPSS) and NVivo software. Statistical analysis for questionnaire data and thematic analysis for interviews were adopted.

The results showed that instructors who had previous online learner experience had higher scores for value of distance education. Data from the interviews showed that the training was found insufficient by most participants as it only covered basic technical aspects of the online environment. The decision for online course provision was made by the top management and there was no consultation with the teachers or even with the directors. There was no follow-up training and very little support was available usually only from some colleagues. A great need for training including distance teaching pedagogy was identified especially on *Community of Inquiry* elements and various interaction types.

Key words: Distance education, English Language Teaching, online learning, teacher training.

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List of Abbreviations

CALL: Computer Assisted Language Learning

CEFR: Common European Framework of Reference for Languages

CHE: Council of Higher Education

CoI: Community of Inquiry

ELT: English Language Teaching

ICT: Information and Communications Technology

LMS: Learning Management System

NEA: National Education Association

RSS: Rich Site Summary

SPSS: Statistics Package for Social Sciences

UNESCO: United Nations Educational Scientific and Cultural Organization

Chapter 1: Introduction

Problem Statement

In the last decade, the number of distance education students has seen a rapid increase both in developed and developing countries (see for example; Allen & Seaman, 2016; Eom & Ashill, 2016; and Ministry of Human Resources Development, India, 2016). This continuous growth, in turn brings about a pressing need for a higher number of instructors qualified for this relatively new mode of teaching. Satar and Akcan (2018) suggest "online teaching skills training, especially through personal experience and reflective practice, should become an essential component of EFL teacher training". More recently, many Turkish universities have joined in the global trend and are moving towards fully online or blended learning in some programmes. The Council of Higher Education (CHE) regulations allow 30 % of any face-to-face programme to be delivered via distance education medium (Higher Education Council, 2014). A widely seen example is the "compulsory common courses" required by CHE to be present in every tertiary education programme in Turkey.

The reason behind moving towards distance education is usually practical needs. Most of these universities have vocational high schools and campus sites at geographically distant locations. Face to face English Language Teaching (ELT) provision for the compulsory English language course is both challenging and costly. Therefore, there are mainly financial and logistic considerations to motivate these decisions (Cakir & Yurtsever, 2012). Moreover, ELT via distance courses are not only beneficial to the institutions providing them. These courses offer great time flexibility for the learners as well. They have access to the recorded lecture videos online along with other course materials without any restrictions of time and place. (Ally, 2008, p. 17; Ozudogru & Hismanoglu, 2016, p. 32)

Distance education may seem to be an ideal “win-win” solution at first glance both for the institutions and for the learners. However, with a more careful study of the matter, there are several problematic issues. First of all, distance education is relatively new for most universities in Turkey. Some universities have established distance education centres which provide delivery services for a range of courses. However, language teaching is a recent addition to their portfolio and the unique requirements of ELT via distance are not recognised by the distance education centre staff. Second, for many English language instructors teaching via distance education is a new experience compared to their established career in face to face environments. Hence, it is a learning curve both for the distance education specialists and the ELT practitioners. This brings forward a crucial need to understand how languages, in specific English, can be taught effectively via distance, what the training needs of the distance English language instructors are and what kind of continuous support needs to be provided (Dede, Ketelhut, Whitehouse, Breit, & McCloskey, 2008).

First of all, let us briefly overview the previous educational and training background of the instructors who teach via distance education. As explained above, the history of distance education is much shorter than face to face courses. That means the majority of higher education teaching staff who deliver distance courses now were students in face to face education in the past. Some online educational tools (such as blogs, wikis or a Learning Management System-LMS) are popular in online programmes and language instructors need to be efficient users of these technologies (Ozudogru & Hismanoglu, 2016, p. 33). Moreover, teacher education that these staff members had was for teaching in face-to-face classroom settings and not for delivery of courses via distance (McNeil, 2016).

A second major element in reaching a better understanding of the move towards distance education is the nature of the training sessions. In the relevant research literature, it

is stated that there is a relationship between professional development and success of online courses (Rubio & Thoms, 2014). Desimone (2009) describes the effects of professional development in four consecutive stages. First, the actual training or professional development activity takes place. Second, this training leads to more developed competences or attitudinal change. In the third step, these developments at cognitive and attitudinal levels are put into practice in teaching. The fourth stage is where the learners are positively influenced by the changes in the teaching approach and methodology.

In the Turkish university context, teacher training sessions for distance education are generally conducted by technical specialists and not by field specialists with distance teaching experience. Therefore, training modules simply concentrate on the technical aspects of this relatively new medium of teaching. Consequently, this implies an assumption that necessary pedagogical aspects had been covered in teachers' previous education which may not have had any focus on distance environments. However, as is the case with other subjects, English Language Teaching (ELT) faculty delivering distance education courses need content knowledge in their specialist area as well as the specific competences needed for teaching in the distance environment. That is to say, they are expected to have competence in pedagogical and technological aspects of distance education as well as their areas of specialisation (McNeil, 2016).

Moreover, knowledge of the differences between face to face and distance education in relation to language learning and teaching methodologies is another significant competence to be developed during training for language teachers. Area specific content knowledge will differ in face to face education as well as in distance education modes. (Compton, 2009; Hampel & Stickler, 2005). Different disciplines share the same medium and the technological tools they use may have commonalities. However, this does not mean that

distance education can be separated from other educational fields and studied on its own. A more appropriate approach would be to identify needs of each subject to be taught and develop successful teaching strategies for distance education. Faculty involvement and feedback are crucial for training to reach desired goals. The aim of training should therefore be to equip teaching staff with the necessary knowledge and skills for the delivery of their specialist subject in the distance education environment which they are or will be working in.

McNeil (2016) states that teachers should be empowered with more responsibility for their own learning and not just be told to do certain things or given literature to be read. These roles include reflection on personal beliefs on language education, mutual observations with other practitioners, setting up targets and planning for own continuous professional development. Therefore, effective training for online teachers should empower them to consider perceptions and attitudes about distance education and language teaching via this medium.

A third important issue is the distance education policy of the institution. There is still a need to explore the more general picture to comprehend how institutional decisions are made and how these apply to training in this relatively new medium of teaching. This policy also affects decisions on what kind of support will be provided to the language instructors in the initial stages of their distance teaching experience as well as continuing support at later stages.

Even though there are studies looking at specific distance education faculty matters, there is still a lack in established research-based practices acting as overarching principles for educational institutions. As highlighted by Wolcott (2003, p. 561) “faculty issues in general have been largely ignored in distance education research”. Moreover, reffering to online teacher professional development (oTPD) programmes, Dede et al. (2009) state a problem of

insufficient research "although such programs are propagating rapidly and consuming substantial resources both fiscally and logistically, little is known about best practices for the design and implementation of these oTPD models" (p. 9). This lack of consensus in the field results in diverse practices in those institutions. These different practices need to be taken into account when planning for the training needs of the distance education faculty working at that institution. In the planning stage, there are some fundamental decisions to be made (Hon-Chan & Mukherjee, 2003; Murray, 2013; Robinson & Latchem, 2003). These can be formed into questions as follows:

- How should training for ELT staff teaching via distance be designed and implemented?
- What are the key technological and pedagogical skills that they need in their role?
- What are the important elements of such training?
- How can we develop an evaluation system for the training for its continuous development?
- What are the support activities that teaching faculty need to be provided with?

In summary, ELT, teacher education, and distance education are three disciplines with varying requirements. Together they form a complex but very interesting area of research. Effective effective and efficient provision of training and support to faculty in this field of education requires an understanding of teaching languages via distance from the perspectives of both the faculty and the institutional management. However, the number of language teacher training programmes for distance teaching is limited, and research into the design and institutional support issues in these programmes is still scarce (Compton, 2009; Dede et al., 2009). Thus, there is a need to better understand perspectives of teaching staff working in the

field of ELT towards distance education, how training and support influence their attitudes, and how directors plan the training process.

Purpose

This research is an explorative study on the in-service training for English Language instructors teaching in particular distance education settings. The aim of the research study is to explore English language teacher training practices in the context of distance education at three selected universities in Turkey using a mixed-methods approach.

This research study has several objectives:

- To explore the perceptions of ELT teachers at selected Turkish universities towards distance education.
- To explore the relation of these attitudes with previous distance education experience.
- To identify support/training elements perceived to be important by the instructors.
- To explore the planning and decision-making processes in the training programmes.

In order to fulfil these research objectives, the following research questions have been formulated:

1. What are the perceptions of a group of in-service English Language instructors at selected Turkish universities towards distance education?
2. What elements of support and training are perceived to be important by instructors?

3. How are the elements of training determined?

Significance of the Study

This is an exploratory study and an attempt to comprehend various issues around distance education, teacher training and language teaching. Each of these subjects, separately, have been studied well in detail. However, there is still a need to research these issues in combination (Zawacki-Richter, 2009). A further research study into 35 years of research on distance education showed that professional development was studied heavily in 1980-1984 period and was overcome by other areas of distance education research through time (Zawacki-Richter & Naidu, 2016). A fresh look into the professional context was therefore deemed necessary.

Moreover, this research study aims to provide multiple perspectives and dimensions on these issues including teaching staff and directors. Their perceptions of distance education, matters related to teacher training and issues around teaching English via this medium are explored in this mixed-method research project. Distance ELT is a new area of research especially in the Turkish higher education system and this study is a modest contribution to the research in the national context.

The study will also cover two perspectives into research on the topic to provide a better understanding. First, by reviewing literature on distance education especially in relation to ELT a discussion of theories relevant to language teacher training for distance education will be provided. Second, by studying particular contexts, a more detailed understanding and description will be provided.

Although such explorative studies generally aim for a particular understanding of specific contexts, it is intended to relate to established theories in the field. With regard to

research findings from this study, there may be comparable situations where they be transferable. In similar contexts to the one in this research study, institutions will also benefit from an increased understanding on the relevant theoretical knowledge and a better awareness of recent developments in distance ELT and in English language teacher training for this medium. As a result, this study promises to be a useful and relevant resource for ELT practitioners and training organisers at Turkish tertiary education establishments.

Limitations and Delimitations

One of the most important limitations of this study is that it was conducted in three universities in Turkey. These are namely Canakkale Onsekiz Mart University, Istanbul University and Karabuk University. Although attempts were made to widen the research to cover other universities, there was not a positive response to the correspondence there. The particular dynamics of these universities influenced the results of the research study.

Private sector was not included in the study. All three universities in this research study were public universities. There are significant differences between public universities and private ones in matters of management and funding. A similar study conducted in private sector universities may produce different results.

School education was not a part of this study although some research references were used on teacher training for distance education in that context. There are some differences in terms of teachers' work context and learner age groups in school education.

Moreover, the participants were not selected randomly to take part in this research study. The data collection through questionnaires was made through convenience sampling which meant available instructors were contacted and asked to complete it. As for the interviews, participants were selected purposively among those who had experience with

distance education as a teacher in addition to other criteria outlined in the data collection section. Purposive sampling was necessary to elicit in-depth data with different perspectives aimed from the interviews however this becomes a limitation for the generalizability of results. Although randomisation is an important element in experimental research design, the current research study is of explorative nature and aims to understand the training process and its elements for distance English language teaching in three selected universities. Generalisability to other contexts was not intended in the research design. The findings of this research study therefore may or may not be relevant to other universities.

Data collection for this research study included a questionnaire and two semi-structured interviews. Observation, focus group interview or document review were not included in collecting data. Exclusion of these data collection tools meant participants' individual perspectives and researcher's interpretation are reflected in the research findings. Use of observation, focus group interviews or document analysis on the same constructs may or may not have produced similar findings. Observation as a tool was not included in this study due to time availability. Focus groups were initially attempted but later aborted due to very low attendance and limited interaction. Finally, there were no documents available for analysis such as evaluation forms or manuals. Especially in the analysis of the interviews member checking of the interpretation was desirable for reliability purposes. Although this procedure could not be followed, transcripts were sent to interview participants for accuracy of data and this provided an opportunity to suggest any amendments.

Definitions

Distance education/learning. Distance education is an umbrella term used here to refer to teaching-learning that occurs via geographical distance between the teacher/instructor and the learner(s).

Keegan (2000, p. 35) identifies five main traits of distance education such as somewhat permanent separation of teacher and learner during the course, materials design and support by the institute, use of media to aid communication between instructor and learner, means for dialogue, and somewhat missing group of learning during the course.

In another definition by the World Bank there is an emphasis on the physical distance between learners and teacher. In this reference distance education is defined as "Teaching and learning in which learning normally occurs in a different place from teaching" (Worldbank Website, n.d. para. 5).

In their policy statement on distance education National Education Association define it as "a form of education in which courses are delivered via the Internet (or other forms of digital technologies that may evolve from the Internet that exists today) without face-to-face interaction between student and instructor" ("National Education Association", n.d., para. 3). This definition is similar to World Bank's definition in terms of physical separation of teacher and learner. On the other hand, it differs from the previous definition since it places internet in the centre of distance education. However, further in the same statement it is mentioned that distance education should "offer opportunities for appropriate offline activities" which hints that distance education is not completely dependent on internet in this definition.

Encyclopaedia Britannica describes four distinguishing characteristics of distance education (Simonson, 2009).

- Being institutional: Distance education is different from individual self-study it is an institutional and academic method of education.

- Physical and temporal separation: The learners and instructors are physically separate from each other. There may also be temporal separation (i.e. asynchronous distance education). The design of distance education programmes is important to bridge the distance and the differences among learners.

- Interactivity: The technological tools used in distance education can increase learner-instructor and learner-learner interaction.

- Forming a learning group: In distance education there are learners, an instructor, interface and content which together make up a learning group or community.

When both definitions by Keegan (2000) and Simonson (2009) are compared, many similarities can be seen. One main difference, though, is the existence of a learning group. Although Keegan believes in the solitary nature of distance education and identifies this in his list of characteristics, Simonson argues that learning group to be part of any natural education process including distance education. In this particular study, the existence of a learning community and interaction among members is accepted as a crucial element in distance education.

When it comes to *distance learning*, there is no clear definition to distinguish it from *distance education*. One example of this ambiguity is from World Bank's glossary "Term often used as synonymous with distance education, not strictly correctly since distance education includes teaching as well as learning" (World Bank Website, n.d. para. 6). On the other hand, Simonson (2009) uses these terms interchangibly in his encyclopaedia entry "Distance learning, also called distance education, e-learning, and online learning".

In World Bank's definition, there seems to be a difference between learning and education. However, in this dissertation Simonson's approach is preferred and distance learning is used interchangeably with the term *distance education*.

Online learning. Within distance education there is another category usually called online learning. U.S. Department of Education (2009) categorize online learning under distance learning as follows:

> Online learning overlaps with the broader category of distance learning, which encompasses earlier technologies such as correspondence courses, educational television and videoconferencing... today's online learning applications, which can take advantage of a wide range of Web resources, including not only multimedia but also Web-based applications and new collaboration technologies. These forms of online learning are a far cry from the televised broadcasts and videoconferencing that characterized earlier generations of distance education. ("U.S. Department of Education", 2009, p. xi)

As can be seen above, the advanced technological nature and use of web-based resources are the distinguishing elements of online learning in the U.S. Department of Education's definition.

In another study by the Sloan Consortium, one of the greatest providers of training for online education, they classify courses based on the percentage of the online content delivered. First category is called "traditional courses" which have no content delivered online. Instead, course delivery is made orally or in writing. Second, there are web facilitated courses. These typically have 1 to 29 percent content delivered online mainly in the form of syllabus and assignment tasks. When 30 percent to 79 percent of the course is delivered

online, it is classified as a “blended” or “hybrid” course. Interaction happens through online discussions. Finally, when more than 80 percent of the course delivery is online, it is classified as an “online course”, according to Allen and Seaman (2014).

In this study, online education or online learning are used synonymously. They both refer to a type of distance education where interaction with materials, learners and teachers occur online. The nature of the exchanges between learners and teachers can be more synchronous than other forms of distance education. With the spread of advanced telecommunications technology around the world, most of distance education today falls into this category.

Learning management system. LMS is a web-based platform to manage distance education courses. They can be used to plan and manage the content (where teleconferencing systems are integrated) to deliver online classes via videoconferencing, to manage administration of the course such as registration of students, to communicate with support personnel and the instructors, and to assess learning through quizzes and exams. Videoconferencing systems also use an instant messaging tool that makes synchronous education within LMS possible.

One of the reasons for popularity of LMS is that it is an all-in-one solution. With a single log-in it allows students to reach the content, to communicate with peers and instructors, to ask for support and to carry out enrolment and assessment related tasks. Each one of these tasks are difficult to manage on their own, therefore a unified solution is preferred. There are many good examples of free and paid LMS such as famous ones Moodle and Blackboard.

Computer assisted language learning. Computer Assisted Language Learning (CALL) is in fact a very broad term but popularly used in language teaching. Beatty (2010, p. 7) defines CALL as “any process in which a learner uses a computer and, as a result, improves his or her language”.

The breadth of this definition covers many forms of distance education at the same time. One issue here is that there is an increasing use of mobile technologies in our lives and that also includes for educational purposes. Therefore, the term itself restricts it to a more specific domain. Second, it covers self-study programmes where there is interaction between a student and the computer software. However, these self-study modes include little (if any) interaction with other learners and an instructor or among learners (see Ally (2008) for a list of interaction types in distance education). Therefore, this definition of CALL disregards elements of online learning as defined by U.S. Department of Education (2009) or Allen and Seaman (2014).

Educational technology. Educational technology is another difficult-to-define term since there are numerous interpretations by scholars working in this field. In the literature review, this will be covered in more detail. However, to provide a definition within the scope of this study two definitions will be compared. First one is by Garrison and Anderson (2003, p. 34). They define educational technology as “those tools used in formal educational practice to disseminate, illustrate, communicate, or immerse learners and teachers in activities purposively designed to induce learning”.

This definition highlights use of technology for the aim of inducing learning. Inclusion of immersion is also interesting as some game technology such as Second Life has been adapted for educational purposes especially in language learning.

From a philosophical perspective, Blacker and McKie (2003) draw attention to the bias in the term educational technology. They state that its social sonstructivist nature and how learners and teachers contribute to the fulfilment of this term. Introducing technology into education with established philosophy bring ethical challenges as well as intellectual ones.

The interplay between the stakeholders' goals, aspirational or prescriptive as described above, determines how educational the use of technology will be in each instance. This is affected by the skill of the teachers and the motivation of the learners as well. The current study on training the English language teachers for distance education is relevant in shaping the educational quality of the use of technology in distance education.

Instructor. The words instructor was used to refer to professional teaching staff working in university context. School education was not included in this study although some references from research literature are used to refer to school context.

Chapter 2: Literature Review

Introduction

In this section, main theories developed in the field of distance education and language teaching in this particular medium will be discussed. There is a need to understand the main concepts developed and the relevant research studies conducted on these models in order to comprehend the background of the current research study.

An important note of caution is that researchers with different approaches, in different contexts and at different times have developed various models. Therefore, despite similarities among these models, differences are also natural. Conclusions and findings should be evaluated with relevance to their context and used in a similar manner in shaping programmes or conducting future research. First, let us consider why distance education has become so popular especially after the advancement of internet facilities.

Benefits of online learning. Online learning is an important form of distance education. This medium requires use of world wide web to deliver the content and allows interaction either real-time (synchronous) or otherwise (asynchronous). The continuing development of technology has already outdated some of the previous definitions which required use of a computer to access online learning. There are several reasons which have led to this result such as the increasing feasibility of hardware (mobile tools such as mobile phones or tablets), availability of software facilities (Skype for phones, videoconferencing software, epub readers, mobile friendly LMS, cloud technologies etc.) and the increased speed and decreased cost of internet connection. Therefore, modern day online learning is not necessarily fixed to a computer but offers much more flexibility with a variety of options.

Ally (2011) identifies some benefits of online learning for the learners. These can be summarised as flexibility of time and distance. In asynchronous mode students have access to materials regardless of their geographical location or time zone. For real time interaction between students and teachers, there are increasing synchronous facilities such as advanced videoconferencing tools. Another important advantage of online learning is having access to updated materials and experts in the field of study. Ally also adds situated learning opportunities to the list of benefits. People in employment are thus provided with an opportunity to put into practice theoretical input that they have learnt online.

However, benefits of online learning are not only restricted to learners. They also extend to instructors working in such contexts. These are described as follows:

Ally (2011) identifies these benefits both for learners and for teachers. Benefits for learners can be listed as flexibility in terms of time zones, location or distance; real-time (synchronous) interaction between students and teacher; up-to-date materials; ease of communication with experts; and possibilities for situated or contextualized learning. On the other hand, benefits for teachers include flexibility of time and location, ease of updating materials, ease of needs assessment and ease of assigning materials.

Although one would presume general agreement among researchers with the above list, some items need to be approached with caution. For example, synchronous elements in distance education imply a restriction on time flexibility both for learners and instructors. In order to view and take part in some online webinars in the United States a participant in Turkey would need to stay up late at night or wake up very early in the morning. It is still possible to catch up on the missed session by watching the recording however the real-time interaction element is then lost.

Another important caveat may be the “immediate updates”. These refer to the changes in the course content by the administrators or the instructors themselves after the commencement of the course. These updates may not be effectively communicated to learners and as a result, complications may occur. In the researcher’s professional context these changes are usually emailed to learners. The frequent updates and changes are very difficult for most learners to follow, though. Those who had downloaded or studied form a previous version of the content will then miss on the updated version. As a precaution, updates to any material need to be made before teaching commences and should not change again until assessment is over. This will increase consistency between input and assessment.

Theory of Transactional Distance

The theory of transactional distance appeared in 1972 and was first used by Michael Moore. It aimed to identify what distance was and the elements that constituted this distance. An oversimplified definition of distance education would contain geographical separation of learners and instructors. However, Moore’s work has clearly changed this understanding. The term “distance” was defined “not simply a geographic separation of learners and teachers, but, more importantly... a pedagogical concept” (Moore, 1993, p. 20). The elements of separation can be space and time (as in asynchronous distance education) or space only (synchronous distance education).

At this point it must be noted that transactional distance theory takes into account a single type of interaction in distance education (i.e. between tutor and learner). However, there are other forms of interaction as will be discussed later under the modes of interaction section.

Moore (1993, p. 20) elaborates more on the elements which accompany physical and/or temporal separation of the tutor and the learner as follows:

> With separation, there is a psychological and communications space to be crossed, a space of potential misunderstanding between the inputs of instructor and those of the learner. It is this psychological and communications space that is the transactional distance.

There are then personal and social elements that make up the distance between the learner and the tutor. It can increase as well as decrease depending on varying circumstances. "Psychological and communications spaces between any one learner and that person's instructor are never exactly the same. In other words. transactional distance is a continuous rather than a discrete variable, a relative rather than an absolute term" (Moore, 1993, p. 20). It is possible to see in this quote that in Moore's view transactional distance should not only be perceived as a quality restricted to distance education contexts but rather it covers a more general educational environment. A lecture with great psychological distance and little or no interaction between learner and teacher will then have a greater transactional distance than an online session where instructor and learners have effective interaction.

Following on from the above definitions one wonders how this transactional distance can be measured, researched and how it can be decreased. This is yet another challenge for the educators as well as researchers working on this topic. To clarify this further in his theory Moore (1993) came up with three key elements of transactional distance which are instructional dialogue, programme structure and learner autonomy.

Instructional dialogue. Moore discusses distinction between interaction and dialogue. In his understanding "There can be negative or neutral interactions; the term 'dialogue' is

reserved for positive interactions, with value placed on the synergistic nature of the relationship of the parties involved" (Moore, 1993, p. 21). In Moore's view, the factors contributing to the instructional dialogue are educational philosophy of the course designer, student and teacher's personal characteristics, the subject of the course and other factors including medium of communication.

The media of communication have a significant impact on the quality of dialogue in a distance education course. The level of two-way interaction and transactional distance on a distance course are negatively proportioned. When there is one-way communication from teacher to the student, the transactional distance grows. On the other hand, there can be useful two-way communication and dialogue in correspondence courses, however at a much slower speed. These considerations are important at a planning level for a course.

Apart from the media, there are other contributing factors to the transactional distance or closing it. For example, the number of students on a distance course may increase the transactional distance as attention given to each will decrease at greater numbers. Moreover, the frequency of the teaching sessions can also affect the transactional distance. Emotional and physical environment is also considered to bear an influence on the transactional distance between teacher and learners. Emotional elements for teachers may include appreciation from administration for the teachers whereas for the students it is the value of study for significant others at home. The subject area also has an impact on the transactional distance. It is Moore (1993)'s observation that various disciplines require different approaches to teaching. Social sciences require working in small groups where case study or project-based instruction may be appropriate. On the other hand, science and matehemetics courses may require more focus on the teacher and less dialogue.

Programme structure. Educational objectives of a programme, its strategies of teaching and methods for evaluation make up the structure of the programme. It can be made more rigid or flexible to respond to needs of the students. Again, there is a negative proportion in the level of structure and transactional distance "When a programme is highly structured and teacher learner dialogue is non-existent, the transactional distance between learners and teachers is high" (Moore, 1993, p. 24).

The medium again plays an important role as well as how it is employed by the distance instructor. There are recorded media where one-way interaction is the norm and the transactional distance grows. On the other hand, there are interactive teleconferencing media where two-way communication is possible. However, the instructor's choice to increase structure here increases the transactional distance. A more loosely structured course may have less transactional distance.

Moore (1993) identifies six different elements which need to be planned into the structure of a programme. These are:

1. Presentation: How the content will be presented to the students.
2. Motivational Support: How students will be stimulated over the period of the course, how motivation will be aroused and sustained.
3. Critical and Analytical Skills: These relate to the cognitive skills students would need to develop during the course.
4. Provision of Advice: When students need support how are they going to be supported by the teacher.
5. Practice and Evaluation: How is the new knowledge going to be put into practice? How is the teacher going to provide feedback to the learner?

6. Creation of Knowledge: Students' production of new knowledge with support of the course teacher.

Autonomy of the learner. Autonomy is a term interpreted differently by various schools of thought and psychology. Behaviouristic and humanistic approaches have different interpretations of this concept of autonomy when it comes to learning. Also, the dimensions that autonomy apply to are defined in varying ways. Moore (1993, p. 28) defines autonomy as "the extent to which in the teaching/learning relationship it is the learner rather than the teacher who determines the goals, the learning experiences, and the evaluation decisions of the learning programme".

Moore (1993) states that there is great emphasis to teacher dependence in mainstream school education. Although people become adults and are independent in areas of life, this may not be the case for education and learning. Therefore, it is the responsibility of the teacher to help learners develop and achieve autonomy in this distance learning context. Moore admits that the data from the study behind the transactional distance theory produce various results in relation to autonomy preferences. Some learners are comfortable with less dialogue and structure and can demonstrate a greater level of autonomy. On the other hand, others who possess less autonomy would like more dialogue but differ in their preference of high-low level of structure.

Educational Technology Tools in Distance Education

According to Garrison and Anderson (2003) educational technology is "those tools used in formal educational practice to disseminate, illustrate, communicate, or immerse learners and teachers in activities purposively designed to induce learning" (p. 34).

There are numerous technologies used for distance education. Although offline technologies are still very common, most of the technologies are moving towards integrating an online component or becoming completely online. Therefore, a list of some of the most popular online tools will be provided here and briefly explained. In the later part of this section there will also be a classification of the technologies used in distance education in the form of generations.

Multimedia on the internet. There are various media available online now. Graphics, audio, video and text are combined in numerous ways for the aims of entertainment, providing information, persuasion and education. The increasing speed of the developments even surprise the experts in the field and make predictions very difficult. Here is an example from McGreal and Elliott (2008):

> Multimedia on the Internet is still not an everyday reality in the same sense as multimedia on CD-ROM or DVD, which may be commonplace in the home or classroom. Internet connection speeds limit the quality and quantity of what can be transmitted. Even with wired/wireless and high-speed advances, the transmission of large sound, animation, and video files can be time-consuming and often frustrating. (McGreal & Elliott, 2008, p. 144)

McGreal and Elliott (2008) provide a list of some online multimedia such as streaming audio, streaming video, audio chat, web conferencing, instant messaging, peer to peer file sharing, blog, rich site summary, wiki, virtual world, digital game, learning objects, and handheld/wireless technology. Below, some of the most frequently used online tools are briefly explained to form a basis for understanding the technology involved in teaching online.

Streaming audio: The audio file is split into smaller parts and as the initial parts start downloading, it can be played by the user continuously. In the meanwhile, the remainder of the file is downloaded in the background. Long lectures or some famous concerts were transmitted using this streaming technology in the past. In some classes, especially in language education, streaming audio is used to improve listening skills or in other subjects received detailed information from an expert who is not readily available. Radio programmes called podcasts are one good example popularly used in ELT classrooms.

Streaming video: Streaming technology also applies to videos with the difference that it takes up much more space. Youtube is a frequently used example in language classes. More developed cameras and increasing connection speed have contributed to the more widespread use in ELT classes.

Web conferencing: Web conferencing technology has incorporated video streaming which means visuals and audio can be shared simultaneously with a number of users online. Some web conferencing software allows for recording as an in-built feature. Web conferencing is very popular in distance education classes which have a synchronous element. Most web conferencing programmes also have screen sharing facility which allows the tutor to show a presentation or draw using the computer's installed software. For textual communication between the instructor and the learners an instant messaging application is used. Other functions allow share of microphone and camera for presentations by individual students.

Blogs: These are websites with personal web pages on specific topics of interest or travel. The hosting website provides basic programming tools which can help quickly set up a blog even for a novice user. An educational use for blogs can be blog-based assignments. on

a specific topic provided by the teacher. Learners can also read each other's blogs, comment on them and build up on what they have seen in others.

Wikis: Each wiki is a group of websites where a user community reads, writes and can update information. These are stored on a database and usually open access. The commonly known ones are Wikipedia and Wikitravel. Wikis for educational purposes may include group or individual projects where students collect information, write text, search for resources, provide references and insert other media.

Virtual worlds: These are simulations of the actual world where a community around a topic is formed. Users log in and choose their avatars (figures representing themselves) and interact with others in a virtual society and environment. The most well-known virtual world in education is Second Life. It is commonly used in ELT as well.

Mobile technologies: The use of mobile phone applications is especially popular in education. Although they usually serve as self-study courses, there are also online elements in some. One of the most popular applications is DuoLingo with its game-like features, motivational reminders, small modular lessons and availability in many languages.

Generations of educational technology in distance education. The classification of the technology in *generations* is a widespread one (Caladine, 2008; Nipper, 1989; Taylor, 1995, 2001).

First generation. This generation of distance education is marked by independent self-study commonly known as correspondence or mail courses. (Nipper, 1989)

Second generation and third generations. The main difference between the first and the second-third generations is the use of mass media and the acceptance of cognitivism as an

approach to learning. The main elements of course content were programmes for TV and radio which required a larger crew to produce and therefore cost significantly more (Nipper, 1989).

Fourth generation**.** This generation of distance education includes three main qualities of internet which are "information retrieval of vast amounts of content, the interactive capacity of computer mediated communications (CMC) and the processing power of locally distributed processing via computer-assisted programming, usually written in Java" (Garrison & Anderson, 2003, p. 38).

Fifth generation**.** This generation is marked by the use of Virtual Learning Environments such as Second Life (Taylor, 2001).

Sixth generation**.** Web 2.0 based technologies such as wikis, social media and blogs form a sixth generation of instructional technology as they define new ways of interaction between learners and teachers (Caladine, 2008).

In their study on Massive Open Online Courses (MOOCs) White, Davis, Dickens, Leon, and Sanchez (2015) discuss the motivation of institutions and learners to this new and widespread tool. They also speculate MOOCs may be considered the seventh generation in this classification of instructional technologies.

Garrison and Anderson (2003) are critical of this classification as it implies some sort of linear progress in the educational technology and excludes the administrative and pedagogical elements that go hand in hand with technology used. However, they also adopt it partially and admit that it helps understand the different stages in the instructional technology and its use throughout historical developments.

Technology and Instructional Design: Setting Priorities

There are differing views on the role and use of educational technology in distance education. Some believe that the medium (or media) is just a vessel, can evolve through time and does not have much influence on "real" learning. These theorists believe that for quality in the provision of distance education, instructional design must be placed above the use of technology. This view is sometimes called "mere vehicles" argument famously associated with the opinions of Clark (1983):

> The best current evidence is that media are mere vehicles that deliver instruction but do not influence student achievement any more than the truck that delivers our groceries causes changes in nutrition …only the content of the vehicle can influence achievement. (Clark, 1983, p. 445)

The supporters of this opinion are critical of the role media play in the distribution of research results. Clark (1983) particularly claims that research supporting the idea that use of technology can improve learning outcomes is biased and the main motive for it is financial gain expectations by the instructional technology producers. White et al. (2015) describe some of the motivations of Higher Education Institutions in designing MOOCs such as strategic growth, marketing, and strategic collaboration.

With a more balanced and critical view of the situation it is possible to see that the development of media and its adoption in education have revolutionised learning. This is also the case for distance education as discussed in the previous section on generations of distance education. Although the success of learning cannot be attributed to the media on its own, its contribution cannot be disregarded.

> There is no doubt that information and communications technologies offer tremendous opportunities for building rich and resource-based learning environments. However, these technologies are mere vehicles of the educational transaction and on their own cannot substantially enhance learning and teaching. (Naidu, 2003, pp. 354-355)

Naidu's (2003) point gives more recognition to the media adopted in distance education as it mentions "tremendous opportunities" associated with the media used. Therefore, it can be seen as a more centralist view in this technology or instructional design debate.

On the other end of the spectrum, there are those who claim "the medium is the message" (see McLuhan, 1995). These researchers usually explain this by referring to the technical specifications, cultural practices and symbols associated with each medium. They place great emphasis on the media used (in this case computers and online technology). Although technology on its own cannot produce educational quality, these scholars understand and provide research results on the opportunities technology use can foster in transforming education, from industrial age to information age. To cite one such example Robbins and Singer (2014):

> Although the Internet and social media did not yet exist, McLuhan advocated for radical changes in education and suggested that people must be literate in many forms of media, rather than just print. Fast-forward to 2014: New technology and social media are quickly becoming indispensable in academia, for classroom instruction as well as for research promotion and development. (p. 387)

During interaction with other learners, searching for information, using media to reach specific knowledge and distinguishing the reliability of information sources, it becomes clear

that the role of media and its influence on our daily learning as well as professional education cannot be denied.

From yet another perspective Garrison and Anderson (2003) argue that the interplay between media and technology are much more complex than can be explained in an either-or debate. They identify some other key factors affecting learning outcomes.

> Technology directly affects the display, the interaction, the cost, and the design of the educational outcomes. But it remains only one of many other factors that include both manifest and latent, or hidden, characteristics of the educational context. Other notable components include the instructional design, the effect of evaluation and accreditation, the personalities, motivations, the teaching and learning styles of participants, and the hidden curricula embedded in all formal education contexts. (Garrison & Anderson, 2003, p. 32)

Here, Garrison and Anderson (2003) give recognition to the role played by both the technology and instructional design but remind researchers and educators need to be cautious when attributing learning outcomes to either factor.

There is also a widespread recognition for the need to use developing media and technology in education. It is stated in UNESCO (2011, p. 4) that "the windows of opportunity that ICT offers for the development of knowledge economies and societies are open also for education." The document "ICT competency framework for teachers" provides a detailed syllabus for teacher education for a more effective use of the new technologies for educational purposes not only for literacy in the new media but also in using to develop life long skills to utilize relevant information.

Access and Quality in Distance Education

As widely recognized, online technology has removed restrictions of time and space from learning environments. However, credibility of distance education is still a concern for many including learners, teachers and administrators. Distance education programmes are still under pressure from stakeholders to prove that they can compare in quality to traditional face to face education. The managerial perceptions have been studied in detail in the U.S. context and Allen and Seaman have produced numerous annual reports on the state of online learning in the US. In their 2014 report they highlight that managers of institutions with online course offerings have responded consistently in 2012 and 2013 with about twenty percent perceiving distance education to be inferior, twenty five percent to be superior and fifty five percent to be the same as face to face courses. However, among the managers in institutions where there is no online course provision about 56 percent in 2012 and 72 percent in 2013 believe that online courses are inferior to face to face courses (Allen & Seaman, 2014, pp. 11-12). These personal perceptions are important because they belong to the decision makers in institutions.

One important example is from the policy statement of National Education Association (n.d.) on distance education making a comparison between traditional and distance education. “Unless otherwise indicated, distance education should be subject to the same criteria that NEA has adopted for quality education generally. Because distance education presents unique concerns, certain additional criteria should be used in evaluating its quality” (para. 13). The expressions unique concerns and additional criteria are worth highlighting here since they point to the negative attitude towards distance education. These debates have led to many comparison studies to establish ‘credibility’ of distance education. As an example to these debates, the NEA’s (n.d.) concern on assessment for online courses

can be given. They state that there is no physical contact between teacher and learners, which in turn, brings forward questions on academic honesty and plagiarism. They suggest that assignments be validated through "the use of multiple assessment mechanisms on a regular and continuing basis throughout the course, including appropriate technological safeguards" (para. 21).

Bishop and White (2007) describe the findings of their research on the Clipper project at Lehigh University in the US. The first of two important findings in the Clipper project is that adaptation in pedagogy is a necessary condition to achieve online learning. Although using new technological tools may make education easier to access, they do not automatically produce learning outcomes without changes to the underlying pedagogy. As many teachers use these tools without changes to their pedagogy, they miss out on the new opportunities newly developed tools may bring.

The second major finding is that managerial support and collaboration among colleagues are needed to change the focus of education from teaching to learning (Bishop & White, 2007).

Thompson and Irele (2003) provide references from numerous research studies which compare courses delivered via distance education to those delivered face-to-face. The aim of these studies was to establish trust for the relatively new distance education medium. It was not only the medium that was evaluated in the comparison studies. The institutions specializing on distance education also went through a similar credibility test. Face to face teaching is presumed to have a higher status by some establishments which impact on attempts to widen use of distance education by traditional medium schools as well. "Thus, whether the distance education program was offered by a traditional institution or an institution specializing in such programming, its evaluation was defensively focused on

presenting data that would allow its continued existence, if only on the margins" (Thompson & Irele, 2003, p. 568).

The conclusion of these studies was then to prove academically that as a medium distance education is comparable to face-to-face education. Thompson and Irele (2003) state the result as follows:

> decades of evaluation studies focused on demonstrating that distance education programs were 'as good'—that is, that students learned as much in them—as resident instruction programs. The primary approach used was the media-comparison study, which pitted classroom-based instruction against technologically mediated instruction. (Thompson & Irele, 2003, p. 568)

With regard to teaching specific language skills online Ortega (2011) states that despite wealth of research on vocabulary learning advantages in online learning there is also

> ...suggestive initial evidence that text-based SCMC may fare better in this area than FtF interaction does. It is possible that, with some external pressure to attend to form, learners can take fuller advantage of freed-up available cognitive resources to attend to grammatical form, perhaps aided by the slower processing demands and the visibility and permanence of the texts. (Ortega, 2011, p. 247)

In the Turkish context, there have been long discussions on this issue as well. In the commission meetings of Higher Education Council (CHE), there were decisions that "distance education" is not possible, and the term should be corrected as "distance teaching". Further to this, on 30.03.2017 in a General Committee meeting it was decided that online programme degrees should specify "distance teaching" as a delivery method contrary to the decision by the same committee on 29.04.2010. This drew a lot of attention from students and

the media. Özarslan and Ozan (2014) state that the CHE committee on distance education is not made of academicians with expertise in distance education and their programme evaluation is not based on transparent criteria. In the absence of a sustainable national policy on the implementation, financing and accreditation of distance education, the perceptions of these individuals form final decisions.

On the other hand, actual research may prove these Turkish decision makers biased. A particular example is a study carried out with 43 Turkish university students by Ekmekci (2017). He found that writing in an online "flipped" course produced better results than the traditional counterparts where writing was taught through lectures in classroom. The research also highlighted that teaching writing in flipped mode is more enjoyable than traditional classroom teaching of writing. Besides, Ekmekci (2017) concluded that teaching writing in a flipped classroom was more student-centred and provided more autonomy for students.

Quality criteria. In order to define quality certain criteria have been identified by different researchers. For example, Rosset (2002) focuses on two main elements such as support and learner-centredness. In yet another approach Ring and Mathieux (2002) describe authenticity, interactivity and collaboration as keys to success in online education. On the other hand, Lezberg (2003, pp. 432-433) lists a more comprehensive set of quality criteria from US institutions as institutional context and commitment; curriculum and instruction; faculty support; student support; and evaluation and assessment.

The discussion on the quality of distance education and its comparability to face to face education also applies to the field of teacher education. There have been some attempts to compare teachers trained in different mediums. However, researchers admit that this kind of research is particularly difficult to control. In terms of classroom practice, some indicators of practice in the classroom have been controlled for and researched in some studies

(Perraton, 1993, pp. 15-16). Many studies use exam results to measure traditional and distance education courses. Then there are others where subjective data have been used to compare the results of teacher training programmes. Perraton (1993) suggests using the retention rates of teacher training courses via distance as a criterion to measure its success and quality. The number of starters and successful completions should be used to indicate cost-efficiency and quality of each particular course for further investment into this field.

Institutional support in online education. In the U.S. tertiary education context Herman (2012) reports a great level of dissatisfaction with the support provided by the institutions (70%). Another 20% of educational establishments offer no support to online teachers. Another study by Walters, Grover, Turner, and Alexander (2017) in a U.S. university found that institutional approach to online learning courses was perceived to be an important element in teachers' satisfaction with their online teaching experience. Both of these studies emphasize the effect of institutional support and managerial approach to distance education on the perception and satisfaction of teachers.

Availability of professional development training and support is an important issue for quality in online teaching and a clear sign of institutional support or lack of it. Arsht (2011) identified training and support to be a crucial factor which positively contributes to the success of language teaching via distance education. According to her "a major obstacle in offering more quality online courses is the shortage of adequately prepared instructors. Lack of training opportunities could be a major hindrance to effective distance course delivery" (p. 70). Moreover, she argues for the introduction of new technologies in training so that the instructors can make use of them in their online classes. In addition, Haggerty (2015) concluded after her research findings that "professional development (or a lack of it) impacts

significantly on how academic staff are able to manage their workloads and therefore cannot be ignored" (p. 207).

Another consideration in the training programmes of online educators is their involvement during the training decisions as pointed out by Chu (2013). She states that teachers involvement in the planning of professional development will improve their engagement.

Adnan et al. (2017) also state the importance of professional development activities in moving to online education from traditional classroom settings.

> Change is easier to manage when parallel to employees' goals, so faculty participation and engagement is critical in embracing online learning technologies, particularly in conventional teaching situations. Professional development programs are vital to integrate lecturers into this change process; advising about the change nature and background, as well as training on the basics of online learning, tools and techniques required to adapt conventional classroom environments to online. (Adnan et al., 2017, p. 23)

Moreover, Walters et al. (2017) suggest "Professional development planning that is based on the expressed needs of faculty rather than what faculty developers determine they should know may be more effective in meeting the needs of advanced faculty" (p. 16). It is important to understand "one size fits all" managerial approach may not produce desired learning outcomes in the professional development activities, training and support for online teaching.

In the training planning stage learning preferences of course attendant should also be taken into account. For example, a previous study by Erdem Aydin and Gumus (2016) among

118 Turkish learners studying at a particular online university degree course revealed that there was also preference for individual learning rather than group learning activities. The main two reasons for this preference were provided as communication problems and (lack of) fulfilling individual responsibilities in a team.

Theory of Community of Inquiry

One of the most influential theories on distance education with various aspects is the theory of the Community of Inquiry (CoI). The underlying idea behind this theory is one of sharing and building knowledge in groups. This naturally is a very social process and is extremely relevant to our current time and age. Garrison and Anderson (2003) explain the nature of education in relation to information as follows:

> The dominant issue in education today is not access to more information. In fact, making sense of the quantity of material they are exposed to is a serious challenge for students. It is impossible to meaningfully assimilate all the information in even the narrowest of subject areas. (Garrison & Anderson, 2003, p. 11)

This contemporary challenge of the huge amount of information to deal with leads to a different strategy. This is a shift of emphasis from “attaining knowledge” to “selecting and interpreting knowledge”. Thus, what becomes of that knowledge is more of an interest especially at a philosophical level. The outcome of learning is to build upon previous knowledge and skills in order to prepare for future learning opportunities. It is not to digest some given information only (Garrison & Anderson, 2003).

It is possible to see strong influence of Dewey in this approach to learning. Garrison and Anderson (2003) identify two main elements from the principles set out by Dewey (1938). The first of these is continuity and the second one is interaction. Continuity is

described above as a process where one educational interaction leads to and continues with another. That makes learning a meaningful continuum. The second one, which is interaction has a unifying nature as it combines personal world with the objective world in a timeframe. The outcome of this interaction is meaningful learning again. “Through this interaction, ideas are generated that illuminate the external world. That is, meaning is constructed and shared. Through interaction, ideas are communicated and knowledge is constructed and confirmed” (Garrison & Anderson, 2003, p. 13). The nature of this learning is then socially constructed. In a group of learners with similar learning interests, external reality is perceived, interpreted, shared, confirmed and so the cycle continues.

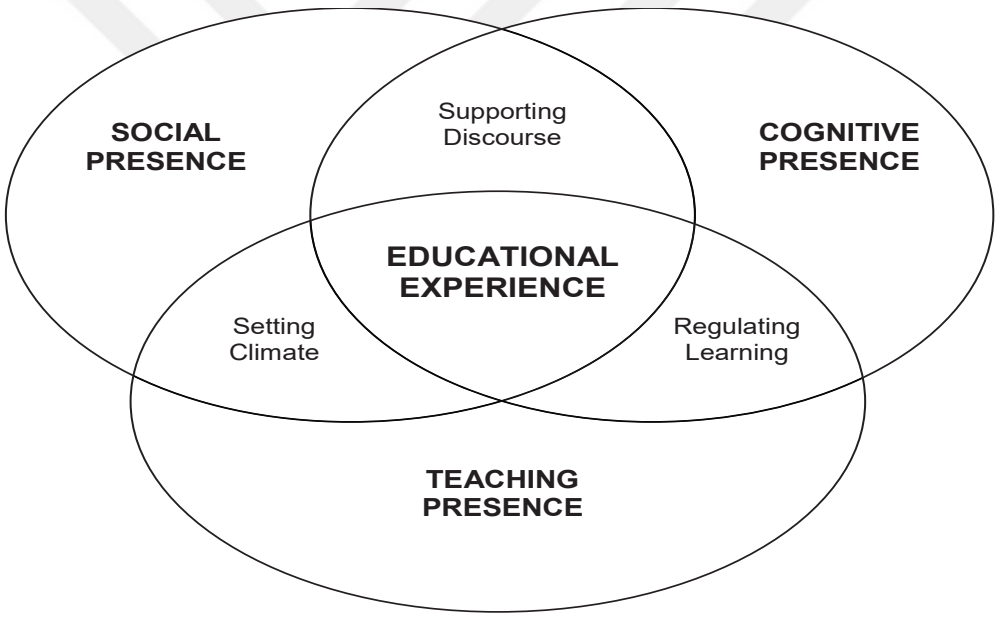

Figure 1. The Community of Inquiry theoretical framework. Adapted from Garrison, Anderson and Archer, (2000, p. 88).

Rourke and Kanuka (2009) summarise the essential elements of CoI as having a supportive environment at cognitive and social manner, direction from an expert, and taking part in dialogue with other students to achieve own learning outcomes. This description includes three key elements of social, cognitive and teacher presence (see Figure 1).

Social presence. One of the main elements of forming a CoI is to enable the participants to interact with each other and not just work individually in isolation. This element is called the social presence. On the other hand, the self study programmes which preceded online learning programmes may not have had this necessary element. Social presence, however is considered an indispensable part of distance education by Garrison and Anderson (2003):

> ... implicit denial of community has been perhaps the greatest shortcoming of traditional distance education with its focus on prescriptive course packages to be assimilated by the student in isolation. Unfortunately, this is based upon an assumption that learning is an individual experience and that there is little need to negotiate meaning and confirm understanding. Education and learning, in its best sense is a collaboration, which includes a sense of belonging and acceptance in a group with common interests. As such, we must reflect upon what social presence means in an e-learning community distinguished by its predominant mode of communication. (Garrison and Anderson, 2003, pp. 48-49)

There are questions relating to the definition of social presence in the community of inquiry model. Garrison, Anderson and Archer (2000) provide the following definition: "the ability of participants in a community of inquiry to project themselves socially and emotionally, as 'real' people (i.e., their full personality), through the medium of communication being used" (p. 94). They further explain that the main difference between the earlier theorists working on this topic and themselves is that the former have emphasized the importance of the medium as the determinant of social presence whereas in the theory of the latter, it is claimed that communication context rather than medium determines social

presence. Some factors within the communication context may be defined as skills, enthusiasm, familiarity, engagement at organizational level, range of activities and duration.

In their research study on teacher training for online education Holmes, Signer, and MacLeod (2010) found that among three presence types social presence was the greatest. Interaction among peers are in the form of asynchronous discussions (via email, sharing of papers) and synchronous (e.g. chat tools). As a result of these exchanges among peers, "participants felt that they were able to develop relationships that promoted learning" (p. 82).

Under the social presence element of the CoI model Garrison and Anderson (2003) identify three sets of indicators which are affective, cohesive and open communication categories. The affective category has three subgroups including emotional expression, disclosing information about self and appropriate use of jokes. Cohesive indicators include use of direct address, inclusive language and greetings. Within open communication interacting with others and taking part are two important subgroups. Some examples of open communication may be continuing a thread or referring to previous messages.

An important factor in establishing social presence is the teacher acting as a model and demonstrating the desired interaction in distance education contexts. Establishing trust and modelling appropriate communication such as critical but constructive feedback on each other's comments are some of the skills Garrison and Anderson (2003) suggest. In order to help establish social presence an initial face to face session is especially helpful. Despite the demands on time and space, this can significantly facilitate the forming of the group and ease the following process of learning as a group.

Cognitive presence. Another important element in the CoI model is the cognitive presence. Garrison and Anderson (2003) use the term to talk about the environment

supporting critical thinking. The concept also includes the process of attaining knowledge and utilising it. This happens not in isolation but in a community: "cognitive presence means facilitating the analysis, construction, and confirmation of meaning and understanding within a community of learners through sustained discourse and reflection largely supported by text-based communication" (Garrison & Anderson, 2003, p. 55).

Garrison and Anderson (2003) explain the cognitive presence element in their Community of Inquiry Model using two concepts developed by Dewey earlier. One of these is reflective thinking and the second is practical enquiry. Reflecting thinking includes three main stages such as imagination, deliberation, and action. In Garrison and Anderson's (2003) model this is further enhanced with the distinction of personal and public aspects. This is still a useful way of looking at the education process especially in distance education. It shows how interaction with others helps receive the public or shared knowledge and then internalize it through a reflective process. The difference is that Garrison and Anderson call this critical thinking. They also base practical inquiry on this critical thinking skill and process. Practical inquiry model is made up of four main stages. First one is the trigger or triggering event which leads to the second one that is exploration. This, in turn, leads to reflection and then consequently to resolution. The trigger and resolution occur in the public or shared world of knowledge (as mentioned above) and the remaining two stages of exploration and reflection occur within the personal or private world.

Holmes et al.'s (2010) study covered cognitive presence in online teacher training for in-service teachers assigned to teach online. They identified cognitive presence as "one of the four contributing factors to participant learning and satisfaction in the study" (p. 83). Elements in the training were found to contribute to the cognitive presence and to course satisfaction. "Participants agreed that they benefited from the overall experience, indicating

that the online forum, readings, and resources contribute to their professional growth and ability to apply new concepts in their active classroom" (p. 83).

Teaching presence. In the teaching presence element of the CoI model, a learning-centred approach is given emphasis rather than the more commonly cited learner-centred approach. The main difference is defined as "The focus is on learning, but not just whatever the learner capriciously decides. An educational experience is intended to focus on learning outcomes that have value for society as well as the learner" (Garrison & Anderson, 2003, p. 64). This distinction is to highlight the role of the teacher in the distance education context. Furthermore, Garrison and Arbaugh (2007) list some research publications and conclude that teaching presence determines student satisfaction, perceived learning and sense of belonging to a group. The need for particular direction in the learning activity requires teaching presence element in the CoI model.

Garrison and Anderson (2003) identify three main areas under the teaching presence element. These are design and organisation, facilitating discourse and direct instruction. The first area which is design and organisation is a higher-level member and it has to do with the change in the medium of delivery mainly. For the lecturers used to working in traditional classroom settings, this means they will have to change the design to make it more interactive. It might also mean a decrease in the amount of lecture notes and increase in the extra materials and resources to support learners. The selection and preparation of course materials are part of the design and organisation area. Moreover, for many learners the distance education experience might be an unusual one and therefore needs to be accounted for. There is a subtle difference Garrison and Anderson (2003) draw between the two terms *design* and *organisation*. The design issues are usually considered prior to the beginning of the learning process and the organisation is usually considered as an ongoing process during

learning (Garrison & Anderson, 2003, p. 67). Despite the assessment of the situation and the careful planning there is an expectation that flexibility is a common principle both for design and organisation.

The next area is facilitating discourse and a clear definition is provided for. “This element represents the fusion of purpose, process, and outcome. It is where interest, engagement, and learning converge” (Garrison & Anderson, 2003, p. 68). Facilitating discourse also unites the personal and shared elements in the CoI. Here, there is a discussion of how the community contributes to the understanding of individuals and how individuals make sense of the learning process. For this purpose, the authors suggest keeping the discourse “focused and productive”. The timing, amount and quality of the interaction elements (such as postings) are crucial to keep it balanced. They should not be delayed, not too much or too little and have good critical value in order to establish this balanced teaching presence. The responses by the teacher should also model appropriate behaviour, make links to earlier messages and appraise good contribution to keep the community actively involved in shaping their learning. Garrison and Anderson express this fine balance in the following quote: “All of this requires more than a ‘guide on the side’ but less than a ‘sage on the stage.’ That is, the teacher must negotiate something more substantial than a rambling conversation but not just a prescriptive dissemination of information” (Garrison & Anderson, 2003, p. 68).

The third and last area in the element called teaching presence in the CoI model is the direct instruction. In an ideal distance education setting the teacher has more than a facilitating role and provides area specific content knowledge as part of the job. Garrison and Anderson (2003, p. 71) count some of the key roles such as to “identify the ideas and concepts worthy of study, provide the conceptual order, organize learning activities, guide the

discourse and offer additional sources of information, and diagnose misconceptions and interject when required".

Another important point in their explanation of the model is that Garrison and Anderson (2003) emphasize teaching rather than teacher presence. The focus is then not on the person but on the process. In the CoI model learners, along with the professional teacher can take on some of the roles in the teaching process. This is not only possible but indeed desirable. In fact, without the participation and cooperation of the learners, the teacher on his own will not be able to fulfil many tasks discussed here.

Holmes et al. (2010) found that in their project on online teacher training "teacher presence had less impact on participants' learning than social presence" (p. 82). There were some recommendations by the teacher-participants on how to develop teacher presence in this context and these mainly related to "more feedback and interactions, synchronous chats, faster responses, and more guidance" (p. 82).

Garrison and Akyol (2013) attempt to extend CoI model to include metacognition which they define in their earlier work (Akyol & Garrison, 2011, p. 184) as "a set of higher knowledge and skills to monitor and regulate manifest cognitive processes of self and others". In their model Garrison and Akyol (2013) claim that the individual and group activities of cognitive presence element include regulation of the self as well as co-regulation. Teaching presence element of the CoI model also collates with the self- and co-regulation as the teacher invites learners for the ownership of their learning and corrects misunderstood issues as needed. Moreover, the collaboration element in the social presence of CoI facilitates the metacognitive processes of self- and co-regulation.

Limitations in CoI theory. One of the main limitations of the model include its development in asynchronous environments and written communication context only. This, however is acknowledged by the authors and in a later publication and research in this area using different media is encouraged (Garrison & Arbaugh, 2007). The integration of audio-graphic materials and technologies into distance education was seen as a major factor which can impact both on the community of inquiry and the learning that results. Themeli and Bougia (2016) identify and this limitation in their newly developed Teleproximity Model. The term teleproximity is defined as "online embodiment that explains how instructors and students are connected in synchronous networked environment via tele-operations" (Themeli & Bougia, 2016, p. 145). A visual representation of the model is shown in Figure 2.

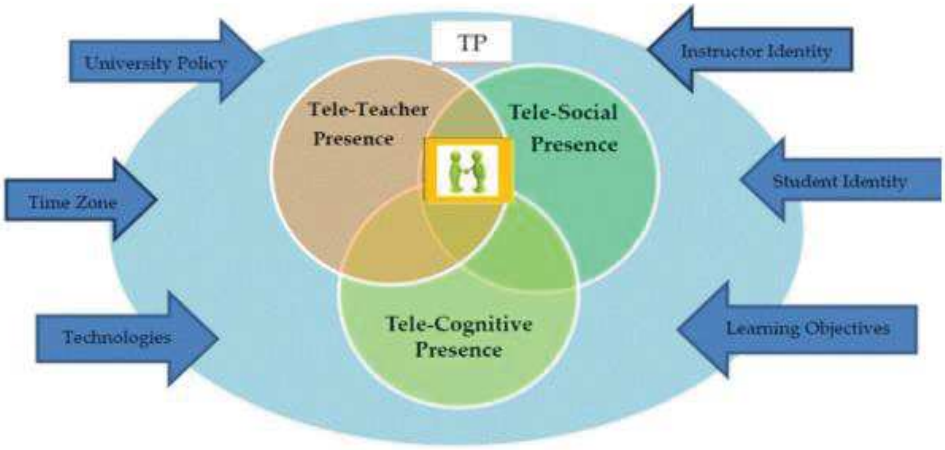

Figure 2. The Teleproximity Model (Adapted from Themeli & Bougia, 2016, p. 153)

In the Teleproximity Model, real-time video conferencing is used as a means to reduce the transactional distance between the teacher and the learners. Some of the advantages of using video conferencing in CoI model are stated by Themeli and Bougia (2016): "Audio visual communication could give the opportunity for more timely and clear exchange of messages than asynchronous communication. Voice and vision, according to the

data collected, give a touch of liveliness to the construction of the online teaching persona. Audiovisual cues influence perception and emotional contagion." (p. 155)

In relation to the social presence element, a suggestion for development of the model came from Pollard, Minor and Swanson (2014). The CoI model itself is based on the understanding that education and attaining knowledge occurs at a social level called the community. The social presence element which is also part of this model argues that the right level of interaction among the learners leads to successful learning. Due to these reasons, the distinction between personal and shared worlds of knowledge needs more elaboration than currently available. In their study Pollard et al. (2014) state that social presence element in the model only covers the social presence of the students and therefore instructor social presence should be considered as a separate element. Further, they quote a previous study by Swan and Shih (2005) where instructor social presence was identified as a separate element than the social presence. In their research Pollard et al. (2014) tested whether teaching presence, instructor social presence and social presence helped to predict community and learning environment. The results showed that instructor social presence was a predictor of both community and learning environment.

Another limitation which can be noticed in the CoI model is in the cognitive presence element. To be more particular, the practical inquiry model includes four stages called trigger, exploration, reflection (or integration) and resolution. Two of these occur in the shared world (trigger and resolution) whereas the other two in the private one (exploration and reflection). However, in another publication Garrison and Arbaugh (2007) explain otherwise: "(2) exploration, where students explore the issue, both individually and corporately through critical reflection and discourse; (3) integration, where learners construct meaning from the ideas developed during exploration" (p. 161). This becomes rather

confusing because in both stages working as a group is a crucial element. Exploring the issue through discourse and making meaning of the ideas collaboratively do not belong to the personal/private world exclusively.

Moreover, Garrison and Anderson (2003) acknowledge the difficulty of achieving the four stages in the cognitive presence element and identify it as a challenge as the first two stages (recognition and exploration) are done better and the remaining two stages (integration and resolution) are done more poorly.

There is an admitted difficulty in moving further to more advanced stages, and Garrison and Anderson (2003) assume the causes are using a democratic medium as well as insufficient level of teaching presence. It is claimed by the supporters of the CoI framework that lack of results in the cognitive presence element is not because of the actual theory but due to other failures in the learning experience (Akyol, Vaughan, & Garrison, 2011). However, some researchers with a different perspective attribute the reason for lack of advancement to the model itself. Its practicality in real life has not been sufficiently researched before forming the model and therefore the actual research done to verify the model does not produce desired support (Jézégou, 2010).

As far as teaching presence element of the CoI model is concerned, the three areas are not clearly separated from each other and overlap even in the definition. For example, some of the roles under direct instruction are to "identify the ideas and concepts worthy of study, provide the conceptual order, organize learning activities, guide the discourse and offer additional sources of information, and diagnose misconceptions and interject when required" (Garrison & Anderson, 2003, p. 71). However, design and organisation and facilitating discourse also have similar roles such as forming the curriculum, offering additional materials and links, sequencing learning activities etc. Although it is possible to see the great

potential of the model, its elements have to be further developed through research and identified causing less ambiguity. This is necessary both for assessment of teaching skills as well as forming training modules for the distance education environment.

Despite these ciritiques and limitations CoI is one of the most influential models developed in the field of distance education. It is therefore used in the present study in the interpretation of needs, perceptions and attitudes of the participants.

Modes of Interaction in Distance Education

The meaning of interaction in distance education. In Wagner's (1994) terms *interaction* is defined as "reciprocal events that require at least two objects and two actions... An instructional interaction is an event that takes place between a learner and the learner's environment" (p. 8).

In this definition objects and events have influence on each other mutually. Moreover, there is a distinction of instructional interaction from other types. Wagner (1994) argues that instructional interaction should lead to some behavioural change towards the learning goal. According to this notion, then, one would assume to see observable changes in behaviour in order to measure learning. This point will be further considered in the following sections.

In addition, Wagner (1994) defines *interaction* and *interactivity* as two separate terms to distinguish between the human-human (*interaction*) and human-machine (*interactivity*) forms. However, this has not been widely accepted by the scholars in this field and seems to be a restricted point of view on interaction in distance education.

Dewey (1938) also paid special attention to interaction in education and defined interaction as "transaction taking place between an individual and what, at the time,

constitutes his environment" (p. 43). This definition highlights two points mainly: the transactional nature of interaction as well as the inclusive definition of the environment. It implies that environment is not static and may change according to time, place, actors and the media involved.

Moore's model of interaction in distance education. Moore (1989) identified three main types of interaction namely learner-content, learner-instructor and learner-learner interaction. These are briefly examined under separate titles as follows:

Learner-content. According to Moore (1989, p. 2) interacting with content is an indispensable part of education which he defines as "the process of intellectually interacting with content that results in changes in the learner's understanding, the learner's perspective, or the cognitive structures of the learner's mind". In this particular definition, we can see the contrast with former deginition by Wagner (1984) especially in the choice of terms which implies difference in the school of thought these two authors belong to. In the former definition there was an emphasis on the change of behaviour towards the learning goal. This is a very behaviouristic approach to learning. However, in the latter definition, interaction does not have to lead to behavioural changes. There is a change but in the cognitive level rather than behavioural.

Among the content types we can consider text (books, journals, home-study guides etc), audio (cassettes, radio etc.), video (cassettes, digital) and compound (learning object, interactive programmes etc.). Educational programmes which focus on this mode of interaction mainly are self-study programmes where learners interact with the content at their own selected pace and are not offered much extra support.

Xiao (2017) states that learner-content interaction is an understudied field. Some take it for granted that students know use of course materials in an effective/efficient way. Moreover, course design should also include aspects of learner-content interaction. With a review of the literature to demonstrate scarcity of research on this type of interaction he asserts more research needs to be done in order to reveal answer to questions like:

> ...what strategies do learners employ to study printed, online, interactive, textual, audio, video or graphic course materials? What strategies do learners use to deal with different activities or tasks in a learning material? How do learners interact with content in an authentic, technology-enhanced or traditional distance learning environment? How do different materials and different activities cater for different subject matters, learning tasks or outcomes, different stages of learning, and learners of different demographic profiles, personalities, previous educational backgrounds, professional backgrounds and learning styles? These questions are only the tip of the iceberg. (Xiao, 2017, p. 130)

Learner-instructor. Among the roles of the instructor Moore (1989) lists motivating learners, presenting materials, evaluating progress and counselling. These are very diverse roles and provide different modes of interaction between the instructor and the learner. Moreover, these roles require very diverse skills and therefore detailed training.

Where the interaction is one way (i.e. from the instructor to the learner), learners are more autonomous. Learners themselves have to take up the responsibility of making sure everything is in place for their learning. This includes motivational stability, interacting with the content, evaluating success, and determining weaknesses. Therefore, it requires a high level of discipline and sustained motivation for learners to successfully complete such distance education courses.

Moore (1989) records that where there is interaction between learner and instructor (a two-way process rather than one) the individualized feedback from the instructor to the learner is most valuable. That is to say for some learners with motivational needs may be met more properly, for others mistakes corrected and for some others further resources provided etc. This makes the learning process tailored to the needs of individual learners and consequently more satisfying.

Learner-learner. Moore has an inclusive definition for learner-learner interaction as follows: "inter-learner interaction, between one learner and other learners, alone or in group settings, with or without the real-time presence of an instructor" (Moore, 1989, p. 4).

Further Moore (1989) discusses the five main acts in teaching including stimulation, support, presentation, application, and evaluation. He claims the learner-learner interaction happens under these different acts based on the age and knowledge level of the group. For younger learners providing and sustaining motivation is more important whereas for adult learners the case is different. They would benefit more from application of the knowledge and the evaluation of what has been learned. The roles identified here are teacher/instructor roles however they are successfully fulfilled by the group of learners. That is how it is also linked with the Community of Inquiry model since the roles are not carried out by clearly distinct individuals but rather as a group or community with a focus on learning. There is also emphasis here on the correct understanding of the knowledge, its application and evaluation. These are some of the important aims in the learning process which were discussed earlier in the practical inquiry by Dewey and Community of Inquiry by Garrison et al. (1999).

Other forms of interaction. Anderson and Garrison (1998) added three more levels into the interaction model by Moore (1989). These are content-content, teacher-content and

teacher-teacher interaction in distance education and they are unified with Moore's categories.

There are certain differences between the categories in the models of Moore (1989) and Anderson and Garrison (1998). First of all, content is not treated as the actual material to be studied in Anderson and Garrison's understanding. It rather refers to the media used to conduct the content. This becomes evident when they talk about 'programming the content'. However, the actual material and the media used to deliver it can be separated from each other as the same content can be delivered using different media and the results may be very different. Second, the learner-learner interaction that Moore (1989) described is more suitable in the Community of Inquiry framework. On the other hand, Anderson and Garrison (1998) distinguish between learners who want to learn in a group and others who would prefer more self-study mode than interact with other learners. Anderson and Garrison believe that teachers working in such diverse groups with varying preferences should be able to ground reasons why certain activities require group collaboration and the desired outcomes so that individual students can make their choices. This level of autonomy in even making choices whether to take part in some group activity or not is not commonly observed in distance education courses and their completion requirements. There is usually a realistic expectation that learners will form and work in groups to achieve a common goal or to complete a particular task. Moreover, the process of group work would teach them collaborative skills (e.g. agreement/disagreement, division of tasks, negotiation etc.).

Teacher-content interaction. Under this title Anderson and Garrison (1998) consider the design of content which updates information from web sources itself. The design of the learning management systems to suit the needs of a particular course or programme of study by the teachers themselves are thought to be a viable option or even a desirable one. They

acknowledge the common belief of experts that content programming should be done by a team of experts rather than expect it from the teacher who already has many other roles to fulfil. However, they believe the advantage would be the continuous update the content when needed. This flexibility makes the development of content more continuous, spontaneous and responsive to learner needs than the situations where everything is prepared before the course commences.

Content-content interaction. This class of interaction is more about programming than content. It manages the interaction between programmes and web-based content mainly. Although identified as a separate category of interaction it is very similar to the teacher-content interaction in the sense that there needs to be an initial programmer/developer to design the programme to select and update necessary information in a course of distance education study.

As an example, search engines may be considered where cookies and Rich Site Summary (RSS) can store information and bring it to the user based on previous searches, keywords and other preferences. Especially RSS, which was not used when the authors wrote their chapter, is a good example since it is a web feed format that updates audio, video, news and other relevant materials. This turns the content of the course from static to responsive and dynamic.

One downside with such updates though is that if it happens during the course of a module and learners access it at different times, they may not access the same materials. Those learners with non-stable connections usually choose to download course materials and study offline. That may lead to lack of standardisation and cause different versions of the course materials to exist. This, as a consequence, shows discrepancy in discussions and assessment.

Teacher-teacher interaction. Teacher-teacher interaction is focused on collaboration among fellow teachers who have experiences of working in distance education and would like to share these with others (Anderson, 2008). Some well-known learning management systems such as WebCT and Blackboard as well as some online collaboration tools such as blogs and forums are useful for people who discuss common problems and would like to find effective solutions to them.

In situations where distance educators have varying teaching schedules and work from different locations meeting face to face with colleagues may be improbable. Then, online collaboration tools will meet an important need. Being familiar with using online collaborations tools and other relevant technology from online classes makes it easier to set up their own teacher support groups to exchange ideas, share experiences, provide basic training on common issues and find solutions to problems. This can and is easily implemented in successful distance education programmes (e.g., Coyle, 2005).

Learner-interface interaction. As different from the categories laid out by Moore (1989), Anderson (2003) identifies another form of interaction. This type of interaction is called the learner-interface interaction which is a "process of manipulating tools to accomplish a task" (p. 132). The emphasis in this type of interaction is on three major elements which are attitudes, competences, and access to the medium. Anderson (2003) argues that this is not an isolated interaction type. It is essentially embedded in any form of mediated communication. The medium of interaction has to be considered in all exchanges among all parties involved. To provide an example, in peer-to-peer interaction the medium has to be considered well. Both parties should have the necessary skill to use the medium without lengthy training. It should be accessible to both parties without technical and personal restrictions. It should sustain the motivation of users and not bore them with

difficulty of use. This interaction is the combination of technical skills of the learner on how to use the hardware and the software and the interactive quality of the distance education media.

Ally (2008) discusses levels of interaction in his compilation and includes interaction between the learners and the interface as well. He states that interface interaction is necessary for sensory interaction with the content and other learners through a computer. Therefore, interface interaction affects on the acquisition and interpretation of knowledge as well as the interaction with other learners and the instructor.

Although, Ally's (2008) definition of learner-interface interaction is acceptable in a general sense but the development of mobile technologies requires us to expand it to various other devices as well as platforms. Mobile phones and tablets are now frequently used in distance education and the quality of the interface is sometimes judged by its compatibility with these various devices. The programmers or designers of the interface have to take into account the various devices, operating systems and web browsers used by learners in order to respond to their needs accordingly.

Tutor-learner interaction. According to Holmberg (1995), there are four main purposes of interaction between tutor and learner in a distance education setting. First of all, it is to arouse interest and motivation in the distance education learner. It is also to help sustain this motivation and interest in the longer term, during the course of study. Second, it is to facilitate learning by providing explanations, examples and clarifications where necessary. Third, it is to help develop critical thinking skills of the learners. The fourth and last function is to assess students' progress. This is done in two main ways, one is through marked tests and assignments and the other through less structured or unstructured assessment by the tutor. Assessment serves many important aims such as measuring the

success of the course, forming a basis for modification if necessary and evaluating the progress of individual students both for themselves and for the educational institution. The final function assessment is carried out in a variety of ways including objective tests and assignments. Objective tests in Holmberg's definition are multiple-choice, ordering and completion exercises. These are easy to assess but measure a limited number of levels in Bloom's (1956) cognitive levels such as remembering knowledge, application, comprehension and analysis. However, the essay or project type of assignments may provide more detailed and personalized feedback to the learners and provide them with more opportunities to develop cognitive skills at higher levels.

The purposes of interaction between the distance education tutor and learners identified here are very similar to those identified by Moore (1989) under the learner-instructor interaction. However, there is a difference in the modes of interaction between a tutor and learners. First, he describes teaching-learning activities happening actually at a distance. Second, there are individual or group tutoring occurring at regional study centres. Third form of study is at residential courses at specific times of the year. The second and third modes are actually not distance education and turn the course of study into a blended nature rather than completely distance. This is a common practice in some distance education courses offered by institutions including the Open Education Faculty at Anadolu University. The reason behind the second and third type of interaction is explained by Holmberg (1995) as "a motivational device encouraging course completion or as a purely instructional element, or both" (p. 113).

A comprehensive list of interactions in distance education. Ally (2008) offers a slightly different list of interactions, especially because this includes a sequential order in which different forms of interactions take place. Firstly, there is interaction between learner

and interface which was discussed briefly above. After interacting with the interface, a learner gets into interaction with the content of the lesson. The lesson presents a set of materials and learners should be able to choose in what order they would like to study these. Therefore, flexibility should be allowed for the sake of learning style. Ally (2008) claims this interaction between learner and the content encourages several cognitive functions including to "apply, assess, analyze, synthesize, evaluate, and reflect on what they learn" (p. 33). Moreover, there will be a transfer from the short-term memory to the long-term memory and new associations between the two will be established. In the third stage learner-learner, learner-instructor and learner-expert interactions take place. These are then followed by learner-context interaction which means applying the learnt knowledge in real life practice. This is also where the learner constructs his personal understanding from the knowledge presented.

Although this list seems to be a compilation of various types of interactions identified by different researchers earlier, its novelty is that it sequences these interactions in a timewise fashion. There are levels where some interaction types are described as lower or higher. In this categorisation by Ally (2008) and the definitions included it is possible to see some clear signs of cognitivist and constructivist approaches to learning.

Key Skills for Distance Language Teaching

In a set of case studies Jones and Youngs (2006) studied teaching of French and Spanish languages at Carnegie Mellon University in Pittsburgh, Pennsylvania. The instruction of these languages was completely online. Their aim in this research study was to find out the skills or areas of training for the online language teachers. Although online instruction has a lot of attention and an increasing amount of research, especially in teaching languages and teacher training for this medium there is need for more research. (Lamy &

Hampel, 2007; Reising-Schapler, 2003; Stickler & Hampel, 2007). Jones and Youngs (2006) identified three key areas for language teachers working in online environments. These are socialization, active participation and collaboration. Let us consider each one under a separate heading below.

Socialization. Socialization is an important element to build the sense of a community and to demonstrate collective effort to studying on a particular course. It increases group cohesion and increases student retention which is a major challenge in online and distance education in general.

Jones and Youngs (2006) worked on the different socialization options available to the use of students and teachers. These were students' webpages on Blackboard, discussion boards, and synchronous chat. With regard to the first one, the student webpages, it was observed that it was not used efficiently for socialization. Although the idea of having individual webpages seems like a good one, the options available with Blackboard were not found satisfactory by the students. Moreover, there was also hesitation from the course instructors on the use of these pages. Finally, students were not motivated to check each other's webpages. These resulted in the poor use of the webpages option for socialization purposes.

The other options for interaction were asynchronous posts on the discussion boards and synchronous chat. These were employed more efficiently by the instructors and the students alike. Some recommendations for use of these tools are using them in small groups or pairs with rotation, using role plays and free discussion activities and keeping group meetings more learner-centred (Jones & Youngs, 2006). These recommendations aim at increasing the socialization of the group of students in order to increase their chances of

interaction, improve their motivation to complete the course and make more efficient use of time and resources.

Active participation. This element among the three key areas for teacher training seems to be a very difficult one. There are clear differences with the face-to-face teaching and therefore the required pedagogical skills would be different. The underlying reason for this difference is that the younger generation of learners are in a constant online mode where interaction via mobile phones and computers is instant. For instructors, especially from older generations this mode of communication and interaction is not so instant. For active participation to be fostered by the instructors there are also general recommendations made by Jones and Youngs (2006) such as prompt responses to email queries from students by the instructor and demonstration of student commitment by preparation and homework completion.

Delayed responses may decrease students' motivation to take active part in the course. With regard to checking student commitment the current technology allows instructors and course designers to collect user data on access times and durations. Moreover, small and personalized tests can be conducted to measure the level of readiness. The combination of this data can be used by the instructor to encourage active participation to the language learning activities.

Collaboration. In their research study Jones and Youngs (2006) included two collaboration tools used on the online platform provided by Blackboard. These were the discussion forum and the chat option. The main difference between these two is that chat option is only available during online lessons whereas discussion forums are available asynchronously. There are other technologies available in online education to support collaborative learning. Some of these are audioconferencing tools and shared whiteboard

facility. The audioconferencing tools are especially useful for pair and groupwork activities which are of essential nature in language teaching. On the other hand, the use of shared whiteboard was not considered as important in this study. Jones and Youngs (2006)' conclusion was that usefulness of a tool was determined by sufficient participation and collaboration which then should be used in the training of other instructors as well.

Pedagogical skills. In a recent study over two semestres at a Turkish university Satar and Akcan (2018) researched 42 (Autumn semestre) and 25 (Spring semestre) pre-service language teachers. As a result of their study they identified important skills for online language teaching. These skills include participating in online courses actively as a teacher, motivating students to take active part, and facilitate forming of an online community to interact and collaborate. It is possible to see in their research results elements of the CoI model such as teaching presence and social presence.

Chi's (2013) research findings also confirm that for practising teachers retraining on pedagogy to teach online is a necessity including assessment types and tools. Haggerty (2015) identified pedagogical aspects of training as a crucial part of training as well: "Professional development needs to focus on pedagogy and practice of teaching and learning, rather than mastery of the technological aspects of online learning" (p. 207).

Stickler and Hampel (2007) also state that mere technological training is not sufficient for effective practice in online language teaching. They emphasise that technical aspects of teaching languages online can be easily acquired with basic training or even with the aid of manuals. There is another element which has "vital importance to acknowledge the difference between teaching languages in an online medium and teaching in a traditional classroom" (Stickler & Hampel, 2007, p. 83).

Eom and Ashill's (2016) study among 372 online tertiary level students revealed that teacher-learner interaction was one of the four major determinants of learning outcomes and satisfaction. Munoz Carril, Gonzalez Sanmamed, and Hernandez Selles' (2013) study also confirms that faculty identified training on how to support learner participation in online learning environments as an important topic to be covered. Moreover, teacher-learner interaction has a positive influence on learners' satisfaction with distance education course is also discovered in Kuo, Walker, Schroder, & Belland (2014).

Interaction was an area in Arsht's (2011) research. She found that using short video clips to introduce reading tasks for an assignment was an effective way of interaction between instructors and learners. Another tool used for interaction between the instructor and the learners on the course was discussion boards. Her research findings also showed that using various types of communication (mixture of text, video and audio) helps to reduce a feeling of "isolation" in distance education classes.

Assessment*:* Assessment was another topic covered by Arsht (2011) in her research at Florida College. In her research on training faculty to teach online, she found that "Faculty are being taught different ways to assess student learning, such as quizzes, essays, tests, and other assignments. Evaluating student learning is another key concept emphasized in the professional development workshops" (p. 72).

The effect of online learner experience. The research study by Holmes et al. (2010) on providing online in-service teacher training to practising teachers found similar results in terms of past experiences. An important conclusion of their research was that "prior participant experience with online courses played a significant role in determining satisfaction with the online professional development" (p. 83). They found a positive

correlation between satisfaction from online professional development activities and previous experience as an online learner.

Arsht's (2011) findings also reveal that online learner experience is important for the professional practice of instructors teaching via distance. "Participating in an online workshop as a student can inspire faculty to incorporate things that they have experienced–or not–in order to enhance their online classroom" (p. 71).

Adnan, Kalelioglu and Gulbahar (2017) carried out a training course for professional development of e-tutors. One of the important aims of this course was to provide learner experience to the trainee e-tutors: "Providing first-hand online learning experience is paramount to ensure faculty fully appreciate the online learning experience in the environment their students will use." (p. 33). In another study, Adnan and Boz (2015) found that participation in an online professional development programme affected their perspective to teach online positively. In these earlier studies it was found that previous experience with distance education as a learner has a positive influence on attitudes towards distance education.

Conclusion

In the literature review section, the main concepts and theories related to distance education, educational technology, instructional design, interaction types and some key skills for distance language teachers were covered. Another objective of this literature review was to introduce some debates on the relationship between access and quality in distance education; and between the use of educational technology and instructional design. CoI framework, which has a major place in the studies on distance education, was discussed in detail here as it forms and important part of the theoretical basis for the current research

study. Finally, some key skills for online teachers were discussed in the light of various research studies.

Chapter 3: Methodology

Introduction

In this research study, the aims were to review literature on teaching English via distance and ELT teacher training for distance education, to explore the attitudes of ELT teachers at selected Turkish universities towards distance English language learning and teaching, to explore the relation of these attitudes with previous distance education experience, to identify support/training elements perceived to be important by the instructors, to explore whether there is a relation between perceived ICT competence and computer use, and to explore the planning and decision-making processes in the training programmes. In order to achieve these aims, a combination of quantitative and qualitative research tools was used. The quantitative research tool was a questionnaire with 15 items which included six demographic questions. The qualitative research instruments were two interviews for instructors and directors with seven and eight questions respectively. The questionnaire aimed at collecting statistical data on a higher number of instructors and the interviews aimed at providing a deeper understanding of the research questions. Triangulation was followed as a principle in data collection tools, data sources and data analysis methods. The use of a single research tradition here would not provide success in reaching aims of the research. Therefore, a mixed methods research study was carried out.

Mixed-methods research.

Due to the specific conditions of this study mixed-methods research was found to be more appropriate as the research methodology to be followed. Before we move on to discussing those conditions, it is important to establish what mixed methods research means and where it is used. Creswell (2012)'s definition of mixed methods research is a comprehensive one:

> A mixed methods research design is a procedure for collecting, analysing, and "mixing" both quantitative and qualitative methods in a single study or a series of studies to understand a research problem (Creswell & Plano Clark, 2011). The basic assumption is that the uses of both quantitative and qualitative methods, in combination, provide a better understanding of the research problem and question than either method by itself. (Creswell, 2012, p. 535)

What is highlighted in this definition is that mixed methods research benefits from the previously well-established traditions of quantitative and qualitative designs. This benefit in combination of those traditions could be in research methodology, data collection tools, data analysis or a combination of other research constituents. The aim of reaching a better understanding of the research problem influences the amount of mixing and the selection process involved here. Another point of caution is that there are not two separate forms of research methods which are combined later. In the design of mixed methods research itself things have to be well-planned in order to have the right balance and mixture.

Brief history and development. Campbell and Fiske's (1959) study formed the basis for current-day mixed methods studies. Campbell and Fiske (1959) conducted a validational process using multimethods. As a study within the field of psychology they measured the correlation of a minimum of two traits measured by at least two different methods. They compared and contrasted the correlation results in order to show validity of the studies and the tests used. Their aim was to check the validity of the measures i.e. that the results were due to the trait being measured and not the method being employed.

Reasons for popularity. Creswell (2012) lists several reasons as to why mixed methods research is preferred and used rather than other methods. First of all, it is used when a combination of both types of data (i.e. qualitative and quantitative) can help better

understand the problem under research. Second, one type of research tradition does not meet the need of the research and answer the questions on its own. That is another situation where mixing these in a suitable manner allows to answer the research questions to be answered. Third, there may be interest in different perspectives provided by both traditions. Quantitative research yields the numerical data where generalisations can be made. For a deeper understanding of the matter, interviews and other forms of qualitative tools may be used.

Collins, Onwuegbuzie and Sutton (2006), on the other hand, describe four different reasons as to why a researcher uses mixed methods research. They are enrichment of participants, fidelity of instruments, integrity of treatment and enhancement of significance. These reasons provide four main perspectives on the participants, instrument, intervention and analysis which also constitute four main areas in a research study.

Despite the previously dominant position of the quantitative methods and statistical analysis in the graduate education sector, Creswell (2012) claims that there is an increasing acceptability of the mixed-methods research design.

Epistemological issues. Creswell (2012) describes the issue of compatibility which was an earlier reaction to the introduction of mixed-method research methods in the 80s and 90s. This was called the *paradigm debate*. Proponents of the incompatibility side argued that each particular method was based on a particular worldview and therefore was not applicable to others. Therefore, mixed methods research was not possible as it used a combination of methods and did not follow a single worldview (Creswell, 2012).

In contrast, there were some scholars (e.g. Cook & Reichardt, 1979) who argued that the methods and worldviews do not have to be dependent, those who made these claims used false dichotomies and provided reasons to support their point. Yet, there were others who

defended the view that mixed-methods research had its own worldview called ‘pragmatism’ (Biesta & Burbules, 2003; Creswell, 2009; Johnson, Onwuegbuzie & Turner, 2007). We will now turn to this final point and see what is said about pragmatist worldview in relation to mixed methods research.

Pragmatism and mixed-methods research. Johnson et al. (2007) describe the position of pragmatism in between quantitative and qualitative research. That is a very interesting place as extremes can be defined but the range in between is very diverse and varies according to many conditions. These conditions are further explained as follows:

> Today, the primary philosophy of mixed research is that of pragmatism. Mixed methods research is, generally speaking, an approach to knowledge (theory and practice) that attempts to consider multiple viewpoints, perspectives, positions, and standpoints (always including the standpoints of qualitative and quantitative research) (Johnson et al., 2007, p. 113).

Biesta and Burbules (2003) define the difference of pragmatist worldview and other traditions in their approach to educational research. For them the most significant difference is “its underlying transactional framework, which allows for an understanding of knowledge as a function of and for human action, and an understanding of human interaction and communication in thoroughly practical terms” (p. 107).

Moreover, Biesta and Burbules (2003) describe the four qualities of pragmatism and educational research. First, in this approach there is an understanding of knowledge as a factor providing more refinement and support to daily problems however not for direct action. Second, the definition of theory and practice in pragmatism is different. Both can be thought of as practices with own possibilities and restrictions and they interact cooperatively

and not always in an applicable way. The third quality is that different objects of knowledge provide different possibilities, for example in using tools for educational research. The fourth one is about objectivity and it insists on an intersubjective nature of reality refusing solely objective or solely relative viewpoints. In educational research (e.g. data collection and analysis) this translates as applying this principle on ends, purposes and values of the research without restricting it to instruments and techniques.

Creswell (2009) also writes on the pragmatic worldview and its connection to mixed methods study. Confirming the above authors, he says that pragmatism is concerned with 'what works' and how to solve difficult situations. He also provides a list of some key features of pragmatic approach to research. First, it does not depend on a single philosophical school or understanding of reality. Therefore, "inquirers draw liberally from both quantitative and qualitative assumptions when they engage in their research" (p. 28). This is because pragmatic point of view is different from others in the sense that the world itself is not seen in absolute terms. Therefore, for pragmatists a divergent way of thinking is possible in data collection and analysis stages, different tools and methods can be employed in order to reach results. Moreover, reality can exist both within and outside of the mind for pragmatists. The important element is the context and its correct assessment. It translates into research as working with different types of data including qualitative and quantitative. Another important point for pragmatic research is that research topic and method are determined by the results the researcher wants to achieve. The purpose of study shapes the amount and type of mixing of qualitative and quantitative methods (Creswell, 2009).

In terms of research pragmatism pays more attention to the research question and research problem rather than the methods involved. It makes use of diverse and pluralistic methodology to gain a better understanding of the problem. It pays more attention to the

results and not a specific method rigidly used. It provides flexibility of methods but asks the researcher to provide reasons as to why they were used in a particular context.

Categories. Creswell (2009) identifies three types of mixed methods research as sequential, concurrent and transformative mixed methods designs. However, he develops this model further in Creswell (2012). This later model consists of six mixed methods design types:

Convergent parallel design. This particular design is usually used when the strengths of one design is used to compensate for the weaknesses of the other. The data (qualitative and quantitative) are collected simultaneously. The data are analysed separately and then the results are compared and contrasted. The discussion is where both types of data are converged. In this design both types of data are given similar or equal importance.

Explanatory sequential design. In this particular design, first the quantitative data is collected, and then qualitative data follows. There is more emphasis on the quantitative type of data to receive a general understanding of the research question and then qualitative data provides for a detailed explanation on it. There are some challenges to using this particular type of mixed methods design. For example, the quantitative data need to be carefully analysed in order to cater for the qualitative data collection (what area or which respondent to focus on). Creswell (2012) also mentions that it requires expertise in collecting and analysing both types of data.

Exploratory sequential design. In this sequential design, first qualitative data is collected and then quantitative data. The idea is to identify themes originating from the qualitative data analysis and then to use a quantitative data collection tool to study the emerging relationships. This is a frequent pattern when a researcher would like to develop a

data collection tool for a specific population. The emphasis is more on the qualitative side of the research and this is represented with the general research question (such as use of an open-ended question) or a more detailed discussion of qualitative results (Creswell, 2012).

Embedded design. This type of mixed methods research design has similarities to the convergent parallel and sequential designs. It allows researcher to put emphasis on either form of data, qualitative or quantitative, and to select the data collection order, either one before the other form of data. The data are not given equal status, one is considered primary and the other is secondary (to support the primary form of data). The two types of data are analysed separately and usually answer different questions in the research. One of the challenges is that the data may not be easily comparable since they address different questions. Second, collecting different forms of data at the same time may have an impact on the data (Creswell, 2012).

Transformative design. This design uses one of the four previous types of mixed methods research designs. The difference is that there is an underlying theory (e.g. feminist) and the aim of the research study is to transform the status of the group under study. At the end of the study the researcher sets out things to be improved for a particular, disadvantaged group (such as racial, ethnic or gender-based groups). The transformative framework comes from an earlier work by Creswell and Plano Clark (2011).

Multiphase design. The multiphase design is made of up several stages as the name suggests. In each stage one of the earlier four types of mixed methods designs can be utilised. However, there should be an overarching project aim or research question that connects these different stages. Creswell (2012) states this type is usually used in wider research projects with more substantial funding (such as health studies).

Triangulation in research design and data collection tools. In the mixed methods research, there is place for different research designs to converge and to be used together. Mackey and Gass (2005) identify triangulation as "the use of multiple, independent methods of obtaining data in a single investigation in order to arrive at the same research findings" (p. 181). The benefits of triangulation are reducing researcher bias and increasing validity and reliability of the research study. However, there is more to triangulation than the mere use of different data collection methods such as theoretical triangulation, investigator triangulation and methodological triangulation (Mackey & Gass, 2005).

Jick (1979) wrote on the importance of "convergent validation" or what is more popularly called triangulation. He identifies the potential of triangulation in complementing the weaknesses of a single research method. He states that using various tools helps discover varying knowledge which is not possible to find out using a single method.

One of the major benefits Jick (1979) believes triangulation can provide is that it gives more confidence to the researchers on their findings. Second, it can help invent new ways of measuring a construct. Third, it shows the odd instances which can reshape the old theory or help build a new one. As a fourth benefit, Jick claims triangulation can help integrate theories and critically put them to test.

In his study, which researched the anxiety levels of employees in a company after a merger, Jick (1979) used triangulation of methods to collect and analyse data; specifically, standardised surveys, observations and interviews. He also spoke to the librarian who told him after the merger the number and duration of library visits increased. He turned this feedback into a data collection tool and used the librarian as a means to collect the relevant data. As can be seen in this example he was mixing different research methods and tools in

order to collect different types of data and followed creative ways of doing this. He analysed the situation well and made informed decisions to achieve research objectives.

Survey design which is usually associated with data collection instruments of questionnaires is one of the popular designs. According to Griffee (2012), there are some key advantages of survey design. First, when used with large number of participants, survey design can provide possibility to make generalization, especially when compared to other designs where the aim is not generalization. Therefore, it is popularly used in carrying out research on needs analysis, evaluation of programmes as well as specific topics. Second, when the research universe it too large to study, surveys can provide useful information representative of the population. another advantage of survey design is that the instruments used to collect data are time-efficient and can help collect a lot of data in a short time. These data can then be analysed statistically with appropriate procedures and generalized to the population. Academic research benefits a lot from this research design.

On the other hand, there are some disadvantages or shortcomings of the survey design. According to Griffee (2012), direct causality cannot be established using survey research design. Second, it can be used to research about attitudes and other descriptive data however not to measure learning. Next shortcoming of this design is that it is “a mile wide and an inch deep”. Due to this quality, Griffee claims people’s opinions are not fully reflected in responses in a questionnaire as a common data collection tool in survey design. Therefore, he recommends triangulation as a means to overcome some of the shortcomings described above. Survey design tools to collect quantitative data may prove very useful when planned carefully to measure specific constructs. However, there are circumstances that require more profound and hard to find answers. In these circumstances, interview becomes a preferable

tool for a deeper understanding of the sample in the research (Griffe, 2012). Interviews are especially suitable in a small-size sample group such as in this particular study.

Rationale for the use of mixed-methods design. In this particular study, the aim was not to reach generalizable results to a research universe. However, there was an amount of quantitative information necessary to understand attitudes towards distance education. On the other hand, there was a need to understand the deeper process of training design and evaluation, challenges and rewards of teaching online, attitudes towards distance education which cannot be easily assessed using scale items in a questionnaire. Therefore, triangulation of these research tools was necessary to answer the research questions.

In the current study, data analysis and interpretation required use of different methods. Statistical analysis was used to analyse the questionnaire items and interpretive or thematic analysis was used to analyse interview data. Moreover, there were members of different universities both instructors and directors taking part in the study. Following a single method rigidly would not help answer the research questions effectively. There was a need for flexibility in the collection of data and analysing it. It was important to provide room for this variety using a mixed methods design. Therefore, in this current study a mixed methods design was preferred.

The type of mixed methods design used in this research study was convergent parallel design (Creswell, 2012), that is quantitative and qualitative data were collected at the same time rather than sequentially. Different types of data were used to complement each other and help explain through a process of comparison and contrast. It aimed to give a balanced weight to both types of data and did not prioritise one before the other.

Research Universe and Sample

This research study aimed to explore ELT instructors at university level. Therefore, the research universe was identified as ELT instructors working at Turkish universities. The focus was on distance education and teaching English via this medium. Due to this condition, the universities using distance education as a medium to teach English were selected from the research universe. There were contact emails sent to various universities known to fulfil these conditions. Transportation to the university, availability of participants and feasibility of establishing contact played a role in the selection of which universities and participants would be included in this study.

Griffee (2012) discusses two main types of sampling: non-probability and probability. Non-probability types are divided further into sub-categories which are quota sampling, purposeful sampling, convenience sampling and snowball sampling (p. 58). In this particular research study convenience sampling was used in the collection of questionnaire data and purposeful sampling was adopted for the collection of the interview data.

Convenience sampling is a technique in sampling where the participants are selected in the most convenient way in the existing circumstances. The students in a classroom where the teacher-researcher teaches would be an example of this type of non-probability sampling. Finally *snowball sampling* is where suitable participants in a sample group refer to additional suitable participants and these are later added to the sample group. This technique of sampling is especially useful in closed groups or special populations where research would be especially difficult without the reference process (Griffee, 2012, p. 58).

Purposeful sampling is another type of non-probability sampling where the researcher selects participants into the sample group based on the usefulness of their contribution to

reach research aims. For example, if adult language learners are the research topic, language teachers working with adults will be selected according to the purpose of the research (Griffee, 2012, p. 58).

Table 1

Frequencies and Percentages of Demographic Values Age, Gender and Qualifications

Value	N	%
Age		
22-25	12	10.6
26-30	35	31
31-35	23	20.4
36-40	20	17.7
41-45	9	8
46-50	8	7.1
51+	6	5.3
Gender		
Male	56	49.6
Female	57	50.4
Qualifications		
BA	36	31.9
MA	55	48.7
PhD	21	18.6

Context for the questionnaire. In the current study, convenience sampling was used for the questionnaires. Instructors were contacted through their respective department directors and following participants' consent questionnaire forms were distributed. The researcher was aware that English language courses were taught via distance at these

universities however having particular experience in this medium was not a requirement to take part in the questionnaire part of the study. Moreover, there was not a selection according to the demographic questions such as age, ELT experience, university level experience or educational level.

The first six items in the questionnaire were about demographic details of the participants. These were coded in order to be entered into SPSS and form categories. The demographic information for age, gender and qualifications are displayed in Table 1.

The largest group in general ELT experience (31 %) had a total of 1-5 years. The groups with the second highest percentage are 6-10 and 11-15 (both 23 %). This means that the great majority of instructors within the sample group had an overall experience of 15 years or less (77 %). The remaining instructors (23 %) had more experience than 15 years.

Question 5 on the other hand was specifically about ELT experience at university level. The experience in this category was grouped into 1-5 years, 6-10 years, 11-15 years and 16+ years. The frequencies and percentages for this question are displayed in the Table 2.

The largest group in terms of university experience had 1-5 years and comprise 47.8 % of the overall population. This is very similar to the overall ELT experience results in question 4. However, there is a higher percentage here (compared to previous 31 %) which means some of these lecturers have moved from other ELT contexts to the university. Moreover, the great majority of the instructors have 10 years or less experience at university level (71.7 %).

The final question in the list of demographics (Q6) was related to the levels of ELT experience. For the categories, here the Common European Framework of Reference for

Languages (CEFR) was used. However, this was not used in the analysis due to problems with coding and was only referred to in the notes.

Table 2

Frequencies and Percentages of Demographic Values ELT Experience, University Experience and University Membership

Value	N	%
ELT Experience		
1-5	35	31
6-10	26	23
11-15	26	23
16-20	14	12.4
21+	12	10.6
University Experience		
1-5	54	47.8
6-10	27	23.9
11-15	14	12.4
16+	18	15.9
University		
University 1	25	22.1
University 2	63	55.8
University 3	25	22.1

There was one final category of university membership identified by the researcher after the collection of the questionnaires. This information was not used to identify individuals as names or other personal information was not requested to follow the principle

of anonymity. Instead of names numbers were attributed to each university as University 1, University 2 and University 3.

Context for the interviews. The purpose of the second data collection tool, the interviews with instructors and directors, was different from the questionnaire. Therefore, the sampling technique also differed. Purposive sampling was used to select participants for this part of the study. Creswell (2014) explains purposive sampling process as "a systematic, non-probabilistic approach to sampling is taken by purposively selecting participants who have: the appropriate experiences and knowledge; the capability to reflect and articulate; an understanding of the subject; time to be asked, and are prepared to participate" (p. 189).

In order to receive an in-depth understanding of the teaching and planning processes two semi structured interviews were used. For the interviews, there were two group of participants. One group was the directors such as the head of foreign languages school, head of foreign languages teaching department or head of distance education. In cases where directors were not available, vice directors or coordinators were interviewed. The main criterion for this group was to have experience of the planning process of English language instructor training for distance education. The second group which was interviewed was the English language instructors. For the latter group, several criteria were applied including working at one of the selected universities, having taught English course via distance at least for one semester, being available for the interviews; and giving consent for the recording of interviews and use of the data for research purposes.

The aim of the interviews was to have a deeper understanding of a particular context and not to reach generalizable conclusions from a random sample of individuals. Individuals who were able to provide a more detailed view of the training process and the teaching environment were targeted. Individual factors such as demographics were not included in the

selection of the sample from the population. Therefore, purposive sampling was the suitable sampling method used to select those participants from the population who fulfilled the criteria. For the interviews with directors four directors from three different universities were selected. These were in different roles relevant to the study and had the capacity to provide information from different aspects. One Head of School of Foreign Languages, two vice-directors of School of Foreign Languages and one Head of Distance Education Centre were interviewed.

Data Collection Instruments

For the research study, there were two types of data to be collected quantitative and qualitative. The qualitative data collection tool was a questionnaire with items designed to provide data for the research questions. The qualitative data collection aimed to address same research questions with a slightly different approach providing a "thick description". These instruments will be explained in more detail in the following sections.

Questionnaires.

Pilot questionnaire. In order to assess the attitudes of the instructors towards distance education as well as their Information and Communication Technology (ICT) competence a questionnaire was prepared. The questionnaire included 16 items as listed in Appendix A. For the faculty support and training activities category items from Savas (2006) were used.

The questionnaire was piloted English Language instructors through personal contacts of the researcher and were not included in the application of the main questionnaire later on. For ease of access and ease of distribution to the participants "google forms" was used to prepare and distribute the survey. Although the survey was distributed to 300 email addresses. Altogether 33 survey entries with a completion rate of 11 % were made and listed

on the responses sheet online. Three of these were incomplete and therefore excluded from analysis.

Analysis of the pilot questionnaire. The pilot survey was statistically analysed in order to identify the correlation between items and to see how items affected the reliability of the results. For analysis SPSS software was used. A reliability analysis test was carried out to check consistency among subscale items. There were two subscales suitable for such an analysis. The first test was run for the items measuring the "Computer Use Subscale" (Q8 and Q9). This subscale consisted of 12 items (α = .78). The high score here means that the scale is reliable since it is greater than (α = .70) as recommended by Buyukozturk (2016). Moreover, deletion of some items in the computer use subscale did not increase the Cronbach's Alpha score. The second test was run to measure the reliability of items in the subscale of "Importance of Training Elements and Methods". This second subscale consisted of 13 items (α = .85). This result is also greater than the recommendation by Buyukozturk (2016). In an analysis of the test results it was observed that the Alpha score does not increase significantly with the deletion of any of the items included in this group of items. After the pilot questionnaire, there were discussions with an expert on the results. Two separate questions on synchronous and asynchronous teaching were merged reducing the total number of items from 16 to 15.

Main questionnaire. Due to the low number of returns from the online pilot survey there was a discussion with the Head of the School of Foreign Languages on how to encourage increased participation rate for the target group of instructors at University 1. Preparing a paper-based version and distributing this during the scheduled meeting of the instructors was suggested. Moreover, the analysis of the pilot survey results demonstrated that there was no significance difference between items asking about training elements in

synchronous and asynchronous teaching. Therefore, these questions in the pilot questionnaire were combined to reduce the question number to fifteen. As the next step in preparing the questionnaire the main survey to instructors was typed on SurveyMonkey which is a useful online survey programme and the file was exported in pdf format. Grids with radio buttons were used here for ease of completion of some items. The online pilot survey did not have this feature (see Appendix B).

Personal and professional computer use items (Q8 and Q9) used a 4-point Likert-type scale where 4 meant every day, 3 meant 2-5 times a week, 2 meant once a week and 1 meant once a month or less often. Perceived value of distance education (Q10), Training elements (Q13) and Support/Training types (Q14) items were measured using a 5-point Likert-type scale where 1 meant not important at all and 5 meant very important. The final form of the questionnaire can be seen in Appendix B.

Interviews

Interviews with directors. A semi-structured interview guide was developed to be used with directors working at distance education centres, foreign language schools and ELT departments. The initial draft was discussed and revised with an expert. It consisted of five sections and altogether ten questions. The questions in this guide aimed to reach a deeper understanding of the training design process, the consultation with stakeholders and the decision-making process (see Appendix C). It also provided a managerial perspective in certain areas of the research where comparisons with instructors' perspectives could be made.

Interviews with instructors. Within the scope of this research project, a second interview guide was developed for the English language instructors working at the schools of foreign languages at selected universities. The draft was discussed and revised with an expert

for content validity. There were three sections and altogether eight questions in this interview guide. The questions in this guide aimed to reach a deeper understanding of the training design process from the perspective of the instructors and the decisions made (see Appendix C). The interviews were semi structured with guidance questions and the print version was shown to the interviewees before the interview commenced. The interviews were recorded with the consent of the interviewees. All the interviews with instructors were conducted in English language and then transcribed.

Focus group interview. Initially, focus group interviews were included in the research proposal. There was an attempt to hold a focus group interview at the School of Foreign Languages at University 1. However, the meeting arranged by the Head of the School of Foreign Languages in his office was very lowly attended. Moreover, the interaction from the interviewees was limited and did not produce satisfactory amount and quality of data. Therefore, this data collection tool was revised in a doctoral committee meeting and excluded from the research project with the decision of the committee. As a result, this procedure was aborted and not repeated at other universities with other groups of instructors.

Data Collection Procedures

Main questionnaire. Due to the low response rate (11 %) from online questionnaires there was a decision not to use an online survey but to implement a printed version of the survey. Printouts were taken and distributed with assistance of the Head of Foreign Languages School to potential participants at University 1. After gathering the questionnaire data from University 1 there was a decision during a doctoral committee meeting to expand the study to further universities in order to increase the number of participants and the statistical significance. Email and telephone contact was established with other universities, especially where English courses were known to be delivered via distance. Later, there was a

positive reply from two other Turkish universities which agreed to take part in the research study. The same research procedure was repeated by taking printed questionnaires and applying them at School of Foreign Languages at selected universities.

Interview with directors. Four directors were interviewed using the interview guide prepared earlier. There was a short explanation by the researcher prior to the interview. This included the background information about the research and how the interview results would be used. The interviews were recorded with consent of the participants. A total of four directors at three selected Turkish universities were interviewed. Two of the four interviews were conducted in Turkish due to the requests from the interviewees. All interviews were recorded with the consent of the participants. Each interview took 5-10 minutes. The recordings were then transcribed using Microsoft Word and the Turkish interviews were translated into English by the researcher. Content was carefully preserved in the translation process. In order to establish reliability of the interview data from translations, the translations were sent to an expert to be checked for accuracy. The transcribed data were also sent to the participants to check whether there were any mistakes in the transcription from their perspective or any clarifications they wanted to be used. A sample is provided in Appendix F.

Interview with instructors. Seventeen instructors from three selected Turkish universities were interviewed. The participants were selected using purposive sampling. During the meetings with directors at each university instructors with certain qualities were identified. These were mainly having taught English via distance for a minimum of one semester. A representation of different age groups and gender groups was aimed at. Potential participants were approached for consent to take part in the interviews. The aim of the research and principles of confidentiality and anonymity were explained. There was a

reminder to each participant that taking part in the research study was voluntary. The printed interview guide was shown to each participant at the beginning. The interviews were recorded with consent of the participants. Each interview lasted 5-10 minutes. The interviews were then transcribed using Microsoft Word. These transcriptions were then imported to NVivo 11 for analysis. The transcribed data were also sent to the participants to check whether there were any mistakes in the transcription from their perspective or any clarifications they wanted to be used. A sample of this correspondence is provided in Appendix G.

Ethical considerations. There were some ethical issues discussed at the planning stage of this research study and then later implemented in the data collection and analysis stages. These are mainly asking for consent for data collection, preserving anonymity in data analysis and reporting and participant check for transparency and accuracy of results.

Permission for administering the research study. For the implementation of the questionnaire to the instructors an application in writing was made to the management of the School of Foreign Languages at each university. The application described the research, aims of the study and how data would be analysed and used (Appendix D). These applications were reviewed by the board of each School and then permission for research was granted (Appendix E).

Voluntary participation, confidentiality and anonymity. At the beginning of both the online pilot questionnaire and the paper-based main questionnaire a note was written to introduce the researcher and the topic of the survey. Moreover, the aim of the survey was described here including a notice that the data would be used for academic purposes and not to identify participants. An email address was provided to enable contact regarding any possible queries. The voluntary nature of participation was highlighted as an important point.

At the analysis stage of the questionnaires every participant was given a number and as well as universities where data were collected. This information then cannot be used to identify persons participating in this research study. All the data collected from interviews and questionnaires were stored in a password protected computer.

For the interviews, the suitable participants were selected using purposive sampling technique. The directors were contacted personally for an interview and based on their availability the interviews were carried out. The aims of research and confidentiality was carefully explained by the researcher before each interview commenced. Moreover, consent to record the interview was taken at the beginning of every interview. For the interviews with the instructors, the selection criteria were discussed with the directors and suitable population were identified. Following this the potential participants were contacted individually and asked for their consent and availability to take part in such an interview. Similar to the interviews with the directors, the aims of the study were expressed and consent for recording was taken before each interview. In the interviews, personal data was recorded in order to organise data and identify data sources. At the analysis stage, these names and other data which evidently identify individuals were taken out. Each name was attributed a participant number and was replaced by it at the reporting stage. This allowed personal data from the interviews to stay anonymous.

Data Analysis Procedures

Analysis of the questionnaire. The questionnaire was analysed using Statistics Package for Social Sciences (SPSS version 23) programme. In this section the reliability analysis, rationale to use certain statistical tests and analyses of individual questions in the questionnaire will be reported.

Reliability analyses. In order to assess the reliability of the scale items Cronbach's Alpha function in SPSS was used. Famously known as Cronbach's Alpha, split halves reliability test is used to measure the reliability of items in a scale and their internal reliability. Buyukozturk (2016) and Field (2013) argue that a scale is considered reliable if the score is (α = .70) or above. The reliability scores for questionnaire subscales can be seen in Appendix H.

Computer use subscale (Q8 and Q9). The first test was run for the items measuring the computer use subscale (Q8 and Q9). This subscale consisted of 12 items (α = .72). This result is greater than the recommendation by Buyukozturk (2016) and Field (2013). Moreover, deletion of any of the items in the computer use subscale does not increase the Cronbach's Alpha score.

Importance of training elements and methods subscale (Q13 and Q14). The second test was run to measure the reliability of items in the subscale of Importance of Training Elements and Methods. This second subscale consisted of 10 items (α = .86). The high score here means that the scale is reliable since it is greater than (α = .70) as recommended by Buyukozturk (2016) and Field (2013). In an analysis of the test results it was observed that the Alpha score does not increase significantly with the deletion of any of the items included in this group of items.

Choosing parametric or non-parametric tests. In order to decide whether to use parametric or non-parametric tests with the existing data from the questionnaire there were several normality tests conducted.

There were three items identified as follows:

- Question 10 about the perceived value of distance education,

- Question 13 about the importance of training elements and
- Question 14 about the importance of training types.

In order to test normality there are several tests and graphical methods that can be used. Buyukozturk (2016) describes three different methods in calculating the normality of data. The first one is using skewness, mean, median and mode. The second is studying the graphics. In SPSS histograms, normal Q-Q plots and Detrended normal Q-Q plots, stem-leaf, box-plot diagrams are produced and used to assess normality. Another method Buyukozturk suggests is using the tests of normality in SPSS. If the group size is more than 50, Kolmogorov-Smirnov test can be used. Otherwise, he suggests using Shapiro-Wilk test. When the *p* value is greater than .05, it means the difference is meaningful and the data normally distributed. Otherwise the data are not normally distributed.

According to Larson-Hall (2010) the null hypothesis is that the distribution of points or scores is normal for a particular sampling group. A *p* -value score less than .05 means that the null hypothesis is rejected. In this case it can be accepted that the data are not normally distributed. Larson-Hall (2010) also advises for the use of Shapiro-Wilk test in the smaller sample sizes than other tests of normality.

Buyukozturk (2016) mentions another condition for the use of parametric tests which is the homogeneity of variances. There is no separate test to measure this but the Levene's test for homogeneity of variances is provided in SPSS. This test can be carried out as part of the *t*-test or ANOVA which are parametric tests. Larson-Hall (2010) explains how Levene's test can be used to test the assumption of homogeneity of variances. A *p* value less than .05 means the null hypothesis can be rejected (Larson-Hall (2010, p. 88).

Shapiro Wilk tests were run for Q10, Q13 and Q14 items respectively. All of these tests resulted in *p*-value scores less than .05 ($p \leq .001$ for all items) and the data were found to be not normal (see Appendix I). Since the normality assumption was not met, non-parametric tests were used to analyse the data for these questions. This meant using Mann-Whitney *U* test instead of Independent Samples *t*-test and Kruskal-Wallis test instead of ANOVA.

Analysis of the interviews. The analysis of the interviews with directors and with instructors were both completed using thematic analysis.

First, the researcher transcribed all the interviews using Microsoft Word document processor. Then, these transcripts were carefully read. Next the codes were formed by highlighting recurring themes and making memos for each. For this coding process, NVivo 11 qualitative analysis software was used. In order to establish interrater reliability, selected interviews were coded by a second coder. The interviews rated by both coders were compared through Cohen's Kappa scores and agreement percentages. These scores are reported as described in the software website (NVivo 11 User's Guide). The overall Cohen's Kappa score was 0.63 and percentage score was 97.76 % (see Appendix J). This Kappa score is considered fair to good as it falls in the range of 0.40-0.75 as advised on the website.

At the reporting stage, the instructors and directors were all allocated a number in order to establish anonymity. The personal data from the transcripts were not included in the reports or the quotes from the interviews. The transcripts were read and coded using NVivo 11 software. The codes were formed using the interview guides as well as emerging themes in the transcripts. The five main themes that came out were:

- Decision process to teach English via distance
- Teaching online: Challenges, rewards and teaching four skills

- Confidence in using technology to teach online
- Support matters
- Training matters

The emerging themes under each main theme, number of respondents and comments were reported in individual tables. There were some codes where responses were made both by the instructors and the directors. However, there were also some codes which were solely commented on by instructors or the directors. There were also occasion where a comment was coded for two different themes as it was found relevant to both. The analysis of the interviews provided different perspectives to the English instructor training for distance education programmes at selected universities. Moreover, talking to different directors shed more light to the less well-understood aspects of the process such as the good practices in training. For example, the interview with the Head of Distance Education Centre at University 1 revealed that there were two online sessions for training purposes at first. However, these were found inefficient due to low attendance. Consequently, a face to face session was organised during which the instructors were invited to a physical meeting and training. Here they were demonstrated how to use the teleconferencing software. For motivational purposes, they were also given certificates on this occasion. These points about the training were not clear from a previous interview with the Head of the School of Foreign Languages at the same university. These results will be presented in more detail under the findings section.

Chapter 4- Findings

Introduction

This section explains the findings of the data collection and analysis procedures as explained in the methodology section. The findings are organised according to the research questions and the corresponding questions in the questionnaire and interviews. Statistical analysis of the questionnaire and interpretive analysis of the interviews are reported under each question.

Research Question 1

What are the perceptions of a group of in-service English Language instructors at selected Turkish universities towards distance education?

Corresponding questions.

Questionnaire.

- Question 10
- Questions 11 and 12 from questionnaire

Interview with directors.

- Is there anything that makes this (English via distance) course different from face to face counterparts?

Interview with Instructors.

- What are the challenges of teaching English via distance?
- What are the rewards of teaching English via distance?

- When you compare teaching via distance to teaching face to face which of the four main skills do you find more efficient in either mode? Why?

In order to answer the first research question on perception of distance education, it is important to look at the mean scores on the value of distance education and the variation between demographic groups.

The value scores were measured in a five-point Likert scale 5 being the highest and 1 being the lowest. The overall mean for the participants was 3.30 which is slightly above the mean of 2.50.

Value of distance education and age groups. In order to test whether there was a statistically significant difference between age groups and value of distance education Kruskal-Wallis Test was used. The test showed that there was a statistically significant difference in value of distance education scores among instructors from different age groups, (χ^2 (6, N = 113) = 13.17, p = .04). In order to understand between which groups there was statistically significant difference, the model view in SPSS was examined for pairwise comparisons. The pairwise comparisons as computed by SPSS programme concluded that there are statistically significant relationships between age groups 46-50 and 36-40 (p = .04), 26-30 and 31-35 (p = .02), 26-30 and 36-40 (p = .03), and 41-45 and 36-40 (p = .048). The pairwise comparisons can be found in Appendix K and the mean scores for each age group are shown in Table 3.

The 36-40 age group mean scores (M = 3.85) were significantly higher than the age groups 26-30 (M = 2.91), 41-45 (M = 3.00) and 46-50 (M = 2.88). Moreover, the age group 31-35 (M = 3.65) scored significantly higher than the age group 26-30 (M = 2.91).

Table 3

Mean Scores for Value of Distance Education Scores

Age Group	N	Mean
22-25	12	3.25
26-30	35	2.91
31-35	23	3.65
36-40	20	3.85
41-45	9	3.00
46-50	8	2.88
51+	6	3.50

Perceived value of distance education and gender. On the other hand, male participants had a higher appreciation of the value of distance education than the female participants and this difference was at a statistically significant level (U = 1238.50, p = .03). Male participants (n = 56) averaged 3.52 and female participants (n = 57) averaged 3.09 (see Appendix L).

Perceived value of distance education and other demographics. A set of Kruskal-Wallis tests were run to check whether there was a statistically significant difference several demographic values and the value of distance education. According to the results of these tests there was no statistically significant difference among staff members of different universities (p = .64), participants with different ELT experience levels (p = .19) and participants with different university experience levels (p = .48) (see Appendix M).

Teaching four skills online. The statistical data were supported with data from the interviews. The questions in the interview aimed to receive a more in-depth view of the

participants' perceptions and therefore included more specific questions. In relation to the value of distance education participants were asked which of the four skills was more advantageous to teach online. The scores are displayed in Table 4 and Figure 3.

Table 4

Interview Codes with Frequencies for Teaching Four Skills Online

Code	Number of Respondents	Number of Comments
Listening online advantageous	3	3
Reading online advantageous	9	9
Speaking online advantageous	2	2
Writing online advantageous	4	4
No skills more advantageous	5	5

Altogether 5 participants commented that distance teaching cannot be better in any of the four skills. Two mentioned their preference for face to face teaching in all cases.

> I think none of the four main skills is efficient in via distance course but I prefer face to face teaching. Instructor 16

Age was mentioned as one of the factors for face-to-face education preference.

> I am much older than the new generation and I am not as open as them, you to novelties. That is why I think being face to face is more advantageous for all situations. Instructor 14

However, this view is not supported by the questionnaire data. Younger groups did not necessarily have higher scores. On the other hand, two participants mentioned that only grammar could be taught via distance.

> In my opinion, the most efficient thing with via distance could be only the grammar skills, not the other four skills. But the students can only improve their grammar skills. Instructor 5

The other comments revealed that most instructors believed teaching at least one skill can be more advantageous in distance education.

Teaching reading online was the most commonly commented on with nine comments by nine participants to be more advantageous.

> I think reading because they just see the slides of the lessons and then they read it. It directly comes and also the visuals that are inserted in the text. Instructor 11

Writing was seen by 4 participants to be more advantageous to teach online.

> It's better for writing because everybody can use the keyboard and write everything on the screen. So, you can easily see all the class writing. Instructor 8

Teaching listening online was seen more advantageous by 3 participants.

> If you have a good whiteboard programme, if you have system sound, videos whatever, listening is better. Because in class if you're sitting in front of the class, you can maybe listen to it clearly but at the back of the class you cannot listen to it. So, it's better in listening. Instructor 8

2 comments were made by 2 participants about teaching speaking being more advantageous online.

> In fact, speaking must be the most efficient one in distance education but unfortunately... because you have to speak in English and the students respond in English. Instructor 4

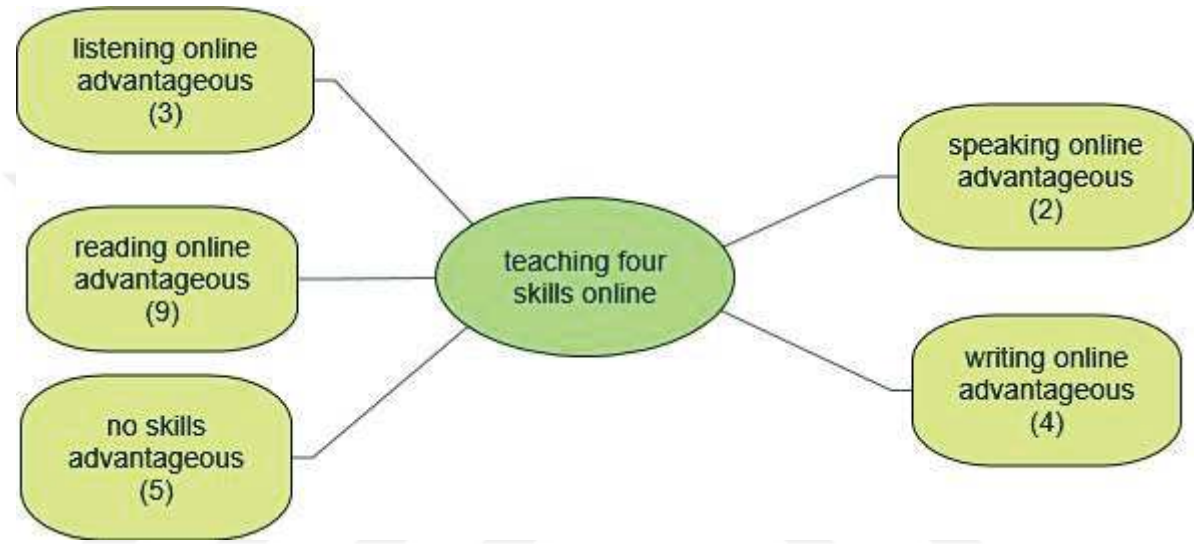

Figure 3. Teaching four skills online

The results here confirmed the findings of the questionnaire analysis. 12 of 17 participants made comments that at least one of the four skills can be taught better online. However, the language used by some participants imply that their statements were hypothetical rather than based on personal experience.

Perceived challenges and rewards of teaching online. There were also questions on challenges and rewards of teaching online as these would give an idea of the participants' views on distance education. During the interview participants were asked what the challenges of teaching online were. The responses with frequencies are presented in Table 5 and Figure 4.

The most frequent challenge identified by participants was interaction followed by attendance. The first one is mainly related to the class size and the technology used to conduct online lessons. The sizes of the classrooms were commented on by some participants and the limitations of the technology:

> Interaction, less interaction makes it difficult. Besides technical difficulties like internet connection or sometimes students cannot have internet connection in their dorms or home. Instructor 5

> I can't be sure whether they listen to me or not. Sometimes they respond, not all of them just two or three students out of one hundred attend the classes and just one or two of them respond to me. You can't communicate very well. Instructor 10

Table 5

Interview Codes with Frequencies for Perceived Challenges of Teaching Online

Code	Number of Respondents	Number of Comments
Attendance	7	10
Classroom management	2	2
Distractions due to computer use	1	1
Insufficient interaction	13	13
Lack of good quality materials	2	2
Managerial approach to course	1	1
Motivation	2	2
Technical difficulties	3	3

Two directors also stated negative perception of distance education mainly due to problems with the current situation in particular with attendance:

> In fact, not beneficial but easy to access. That's why they choose them. About money, finding enough trainers to access you know technology and internet is a good way to access these kind of courses its good. But in fact, face to face is more beneficial. I see for example… I also teach them, I have many courses in distance education there are just 10 students in fact the original number 200 students for example. Director 4

> As students don't participate in live courses it's not that effective when compared with the face to face courses. Because in face to face courses we used to take attendance and students who did not participate 30 % of the lessons did not have a right to take the final exam. So, let's say if you have 35 students, they used to attend. At least in one class you used to have 30 students and you were able to have classes with them. But now they don't participate in the live lesson. So, they just… It's like self-study. Because they listen to the recordings or videos or they study just asking the units they are responsible for in the exam. So, I think it's not effective in that way. But if they could participate in the lessons, live lessons, I think it will be effective. Director 3

Comments of the directors are also important to show how they value distance education as decision makers in the training and delivery processes.

The rewards of teaching online were frequently commented on. These are summarised in Table 6. Convenience was the category name to refer to mainly time and space flexibility.

> Let's say, for example, if you can do this for real purpose it's really good. You don't have to come to school, you don't have to come to campus. You can just attend the

class at your dormitory or home. It's very good also for teacher and students. It's for this case, it's OK. Instructor 4

Table 6

Interview Codes with Frequencies for Perceived Rewards of Teaching Online

Code	Number of Respondents	Number of Comments
Convenience	13	13
Lack of emotional pressure	2	3
Opportunity for Students	2	2
Personal Satisfaction	1	1
Technical Advantages	4	4

Technical advantages of using internet and ability to share links and videos was another popular advantage of teaching online which is a different case in most face to face classrooms since they are not equipped with computers at the moment.

There is also a chance to deliver materials, give links to different websites, upload videos and interactive games and different materials. All materials of the lesson can be delivered from one source which is a great plus. Director 1

And also, if you can use technology effectively, it's also very useful for teachers and both students visually, also you can do many things. Instructor 4

Under this question there were also five responses related lack of emotional pressure and opportunity. These are also related to teaching from a certain perspective since the medium used for teaching has an impact on the student and this impact in turn affect the way

instructors teach. An atmosphere without emotional pressures of the physical classroom is more desirable for the teacher as well.

> Equality. Everybody can see the lesson clearly easily. And also, you don't have any shy students because they are just writing. Instructor 8

> I feel more comfortable than the class. And also, you don't have to take care of any clothing whatever you wear you can just do the class. So, I feel more relaxed when I'm doing my lesson online. Instructor 8

> I think apart from these irresponsible students there are really some student who would like to learn English and although distance course is very difficult for them they listen they want to focus on and they have the opportunity which they don't have in their cities or in their region or somewhere where they live. Instructor 6

Personal Satisfaction was identified as another reward of teaching online.

> First of all, rewards is satisfaction, personal satisfaction. I think you feel like a TV presenter, a television presenter. Because you have students from all around the country from the distant parts of the country from Kars to Izmir from Trabzon to Antalya. And all of them are watching you all of them are seeing you and listening to you. In a way, you become a famous person a famous presenter for them. You don't know them but they know you very well. Even in some cases if you meet them on the street or face to face then it was really a proud for me because... They like it yeah, they like it so much. Instructor 2

In a comparison of the comments made under challenges and rewards of teaching online it was seen that there were more comments under challenges than comments. Twenty-three comments were made in five categories under rewards of teaching online and thirty-six

comments were made in eight different categories under challenges of teaching online. This is an indication that in the teaching experience of these instructors there were more challenges than rewards in quantity and/or in quality.

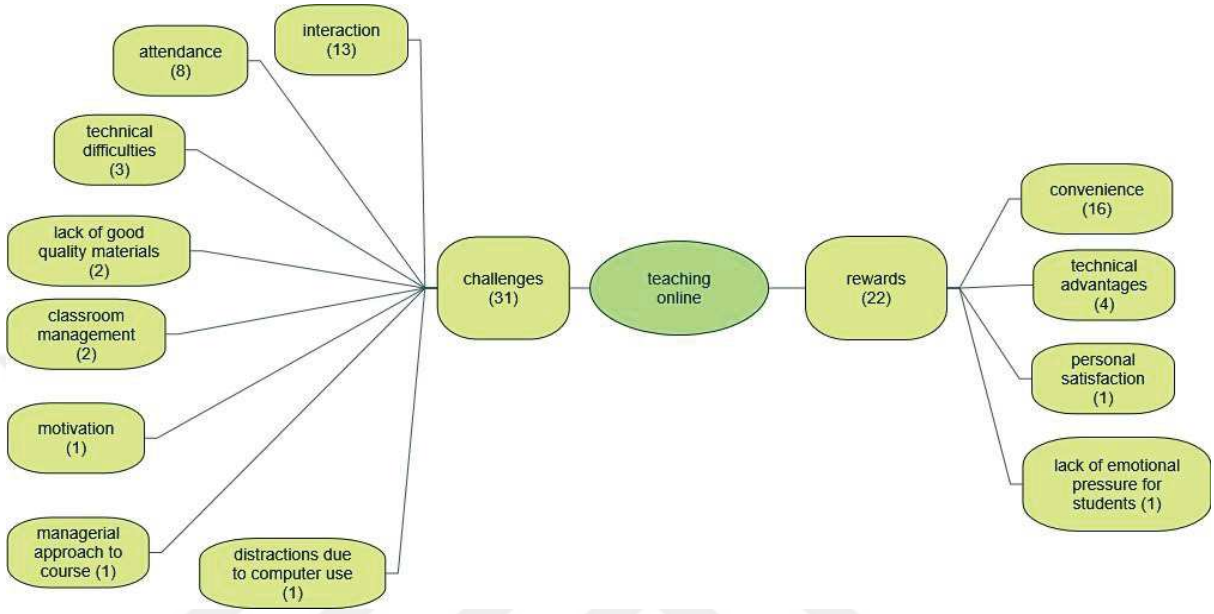

Figure 4. Challenges and rewards of teaching online

Previous experience of distance education as a learner or a teacher. Question 11 asked if the participant had experience of distance education as a learner. Question 12 asked if the participant had any experience of distance education as a teacher. In the following step, the responses were entered into SPSS. The responses for Q11 and Q12 were merged into four categories (Both, Only Learner Experience, Only Teacher Experience and None). The frequencies and mean scores for these groups are reported in Table 7.

The number of participants in two groups were fewer than 30 and the Shapiro-Wilk test of normality results showed that the data were not normal (see Appendix I). That is why a non-parametric alternative was used to assess group differences. For this question, there were four different categories. Therefore, a Kruskal-Wallis test which is the non-parametric equivalent of One-Way ANOVA parametric test was used. The Kruskal-Wallis analysis of

variance test (see Appendix N) showed that there was a statistically significant difference in value of distance education scores between instructors with different distance education experience, $\chi^2(3, N = 113) = 16.323$, $p = .001$.

Table 7

Mean Scores for Distance Education Experience

Experience Group	N	Mean
Both	26	4.04
Only Learner Experience	4	3.50
Only Teacher Experience	45	3.22
None	38	2.87

In order to identify which groups had significant difference, pairwise comparisons were carried out using the Model View in SPSS. This further comparison revealed that there was no significant difference between participants who had experience of being both a learner and a teacher in distance education and those who had only learner experience. However, there was a statistically significant difference between those who had experience of both and those who only had teaching experience only ($p = .003$). Moreover, scores of participants who had both experiences and those who had none showed a statistically significant difference ($p \leq .001$).

A Mann-Whitney *U* test was used to examine the difference in the value of distance education perceptions of participants with both teaching and learning experience and only teacher experience. A significant difference in the results was found ($U = 340.50$, $p = .003$). Those with both experiences averaged 4.04 and those with teaching experience only averaged 3.22. Another Mann-Whitney *U* test was run to see the difference in the value of distance education perceptions of participants with both experiences and those with no experience. A

significant difference in the results was found (U = 222.50, $p \leq .001$). Those with both experiences averaged 4.04 and those with teaching experience only averaged 2.87 (see Appendix N).

This gives us the understanding that having experience as a learner is a determinant factor in the perceived value of distance education. Those who have no experience of distance education as a learner but have such experience as a teacher still have lower scores in the perceived value of distance education. Actually, their scores did not differ significantly from those who had no experience of distance education.

Above, it was stated that a statistically significant difference in age groups of participants was found. The higher score in age group 31-35 and 36-40 may not be necessarily due to age. With a crosstab analysis of age groups and previous distance education analysis it was seen that the percentage of participants with learner experience and both teaching and learning experience were found higher than those without learner experience (only teaching experience or no experience with distance education at all).

In summary, statistical tests with the participants showed that having learner experience in distance education is a factor which brings a higher score in the perceived value of distance education.

The interview feedback showed variation. Some believed that having experience as a learner would bring a positive outcome such as the following participant:

> But if he experiences this himself and takes part in distance education as a learner, he can plan from a learner's perspective. "How should I treat learners? What is the psychology of the learner?" these he experiences himself. If we teach about distance

education via distance education, it will be better. That is a target for the future. Director 2

On the other hand, there were others who had a negative perception of distance education.

Actually, I don't like distance education I have to say. Because, I mean, there are lots of cons, disadvantages more than advantages so I don't …No, I don't think so. I mean… You cannot be further trained for this. Instructor 11

They're English teachers, we choose English teacher etc. That's why they don't need any training about the content but in technical terms they need. And also, we give them at the beginning of the semester we have a meeting and for one or two hours by slideshow I teach them how to enter the system, KABUZEM system as we call at Karabuk University. And after teaching them technical terms that's enough for them. Director 4

These statements supported the statistical results on perceived value of distance education. All of the instructors interviewed had at least one semester of English teaching experience via distance medium. The majority experienced distance education as a teacher and not as a learner. Therefore, the feedback from the interviews focused more on challenges, problems and negative attitudes towards distance education. The feedback about four skills being taught online also shows that these instructors have not been exposed to a distance education course as a learner.

Research Question 2

What elements of support and training are perceived to be important by instructors?

Corresponding questions.

Questionnaire.

- Questions 13, 14 and 15
- Question 7, 8 and 9

Interview with instructors.

- In your training was there an element on teacher-learner interaction in distance environments?
- Do you think such an element is necessary?
- How do training and support activities affect your confidence?
- How confident do you feel in using technology for distance education?

Interview with directors.

- What kind of support is available to online instructors?
- According to your knowledge do instructors find this support efficient?

Question 13 was about the training elements in distance teaching. The items identified were assessment, technical aspects and pedagogical issues. These items were rated according to their perceived importance in a Likert-type scale of 1-5. It was observed that Technical Aspects of the training has the highest score (M = 4.30) followed by Pedagogical Issues and Assessment (M = 4.04 and M = 3.95 respectively).

Question 14 was about the perceived importance of various types of support and training. This question differed from the previous question. Q13 identified elements or aspects of the training and Q14 identified support and training methods. The highest mean was the "Technical support from the institution" (M = 4.37) followed by "Individual training/support from faculty support personnel" (M = 4.19). The lowest scoring support and

training types were "Assistance from Colleagues" (*M* = 3.83) and "Group workshop(s) provided by the institution" (*M* = 3.94). The means for Q13 and Q14 can be seen in Figure 5.

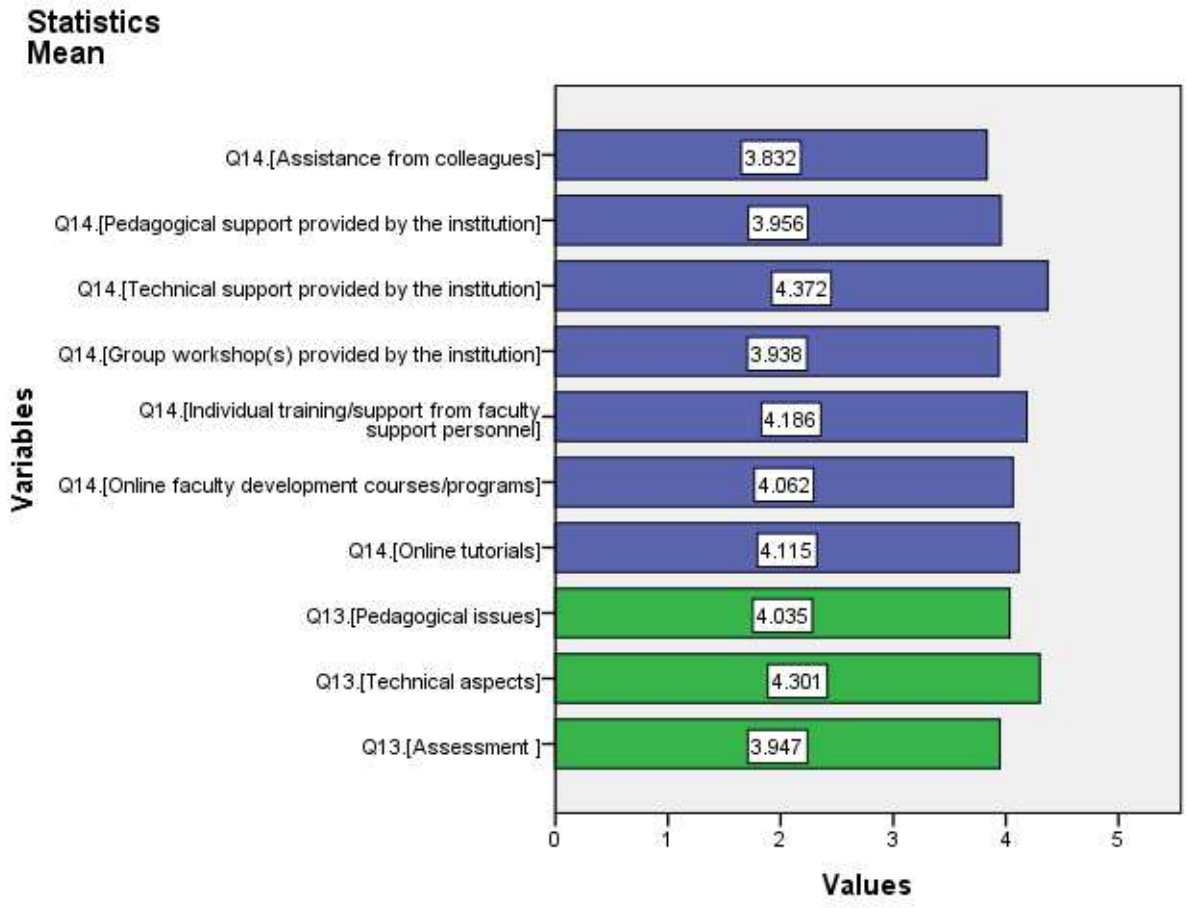

Figure 5. Mean graph for Q13 and Q14.

Importance of training elements and age groups. Demographic groups were compared using Kruskal-Wallis test and Mann-Whitney U test in terms of their Q13 scores. Age groups did not differ significantly in Technical Issues. But for Assessment and Pedagogical Issues the difference was significant (p = .033 and p = .02 respectively). In the SPSS model view, pairwise comparisons showed there were statistically different results for Assessment and Pedagogical Issues (see Appendix O and Appendix P).

Assessment and age groups. According to the pairwise comparisons as computed by SPSS programme there were statistically significant relationships between age groups 46-50 and 22-25 (p = .003), 46-50 and 51+ (p = .01), 31-35 and 22-25 (p = .01), 31-35 and 51+ (p = .051), 36-40 and 22-25 (p = .02), and 26-30 and 22-25 (p = .01). The mean scores for age groups are presented in Table 8.

Pedagogical issues and age groups. The second set of pairwise comparisons showed there were statistically significant relationships between age groups 41-45 and 26-30 (p = .04), 31-35 and 22-25 (p = .006), 36-40 and 22-25 (p = .006), 41-45 and 22-25 (p = .003) and 46-50 and 22-25 (p = .023). The mean scores are presented in Table 8.

Table 8

Mean Scores for Assessment and Pedagogical issues for Age Groups

		Q13.[Assessment]	Q13.[Pedagogical issues]
Agegroup	N	Mean	Mean
22-25	12	4.67	4.75
26-30	35	3.86	4.20
31-35	23	3.78	3.78
36-40	20	3.95	3.85
41-45	9	3.78	3.44
46-50	8	3.38	3.88
51+	6	4.67	4.33

Importance of training elements and gender. In order to test if there were a significant difference between gender groups and training element items, a Mann-Whitney U test was run. The third training element "Pedagogical Issues" showed statistically significant difference between male and female respondents (U = 1206, p = .02). Male participants

averaged 3.84 and female participants averaged 4.23 (see Appendix Q). Female participants gave greater importance to Pedagogical Issues in the training elements. There was no statistically significant difference between male and female participants in training element "Assessment" (p = .11) or "Technical Aspects" (p = .09).

Importance of training elements and ELT experience. Following a Kruskal-Wallis test there was no statistically significant difference among groups of ELT Experience in training elements of Assessment (p = .45) and Technical Aspects (p = .97). On the other hand, for Pedagogical Issues the difference was significant (p = .009). The Kruskal-Wallis test showed there was difference in the ELT Experience group as a whole (see Appendix Q). In order to see which ELT experience groups were significantly different, pairwise comparisons were conducted using the model view option in SPSS. In the pairwise comparisons it was observed that with regard to the importance scores of pedagogical issues as an element of training there was a statistically significant difference between the ELT Experience groups of 16-20 and 1-5 (p = .001), 16-20 and 6-10 (p = .04) and 11-15 and 1-5 (p = .01). The mean scores for ELT experience groups are provided in Table 9.

Table 9

Mean Scores for Pedagogical issues with ELT Experience and University Experience

ELTExpGroup	N	Mean	UniExpGroup	N	Mean
1-5	35	4.40	1-5	54	4.28
6-10	26	4.08	6-10	27	3.70
11-15	26	3.81	11-15	14	4.21
16-20	14	3.36	16+	18	3.67
21+	12	4.17			

Importance of training elements and university experience. A Kruskal Wallis test was run to test if there was any statistically significant difference among university experience groups in terms of the importance scores for training elements. Elements of Assessment and Technical Aspects (p = .08 and p = .37 respectively). However, for Pedagogical Issues the difference was significant (p = .013). The Kruskal-Wallis test showed there was difference in the University Experience group as a whole. In order to see which groups were significantly different, pairwise comparisons were conducted using the model view option in SPSS. Studying the pairwise comparisons table the groups with statistically significant difference were identified and Mann-Whitney U tests were run for these pairs (see Appendix R). The results showed that there was a significant difference between the University Experience groups of 1-5 and 16+ (U = 306.50, p = .01) and 1-5 and 6-10 (U = 481, p = .008). The mean scores for University experience groups are provided in Table 9.

Importance of training elements and university membership. According to the results of the Kruskal-Wallis test there were no statistically significant difference for "Assessment" (p = .87) or "Technical Aspects" (p = .43). However, for "Pedagogical Issues" there was a statistically significant difference found (p = .04). Using SPSS Model View this was further analysed and the statistically significant difference was observed between University 1 and University 3 members. These were further analysed using a Mann-Whitney U test (U = 198.50, p = .02). University 1 members averaged 3.64 and University 3 members averaged 4.32 (see Appendix S).

ICT competence and importance of training elements. The groups within Perceived ICT competence were compared according to their scores for three key elements in teacher training for distance education. The results of the Kruskal Wallis test did not show

any significant result for Assessment (p = .54), Technical Aspects (p = .85) or Pedagogical issues (p = .85) (see Appendix T).

Perceived value of distance education and importance of training elements. Similarly, a test was conducted to see if there was any correlation between value of distance education scores and the three training elements in question 13. For this purpose, Spearman's Correlation which can be used when dependent variable is ordinal or when the data is not normally distributed (Buyukozturk, 2016). The results of the Spearman's Rho correlation test showed that there was a statistically significant positive correlation between the scores of Value of Distance Education and training elements of "Assessment" (r_s (111) = .295 , p = .002) and "Technical Aspects"(r_s (111) = .331 , $p \leq$ .001). There was no statistically significant correlation between value of distance education and pedagogical issues (p = .13) (see Appendix U).

Perceived importance of training and support types and age groups. In order to test whether there was a statistically significant difference between other demographic items and the importance of training and support types Kruskal-Wallis Test was used (see Appendix V). According to the results there was a statistically significant difference among Age Groups in terms of importance scores for "Online tutorials", "Group workshop(s) provided by the institution" and "Pedagogical support provided by the institution". The mean scores are displayed in Table 10.

Online tutorials with age groups. According to the pairwise comparisons as computed by SPSS programme there is statistically significant difference between age groups in Q14 Online Tutorials. The age groups which displayed significant difference were 22-25 and 51+ (p = .001), 36-40 and 51+ (p = .03), 26-30 and 36-40 (p = .04), 26-30 and 22-25 ($p \leq$ .001), 46-50 and 22-25 (p = .02), 41-45 and 22-25 (p = .03) and 31-35 and 22-25 (p = .02).

Table 10

Mean Scores for Q14 Items for Age Groups

		Q14.[Online tutorials]	Q14.[Group workshop(s) provided by the institution]	Q14.[Pedagogical support provided by the institution]
Agegroup	N	Mean	Mean	Mean
22-25	12	4.92	4.67	4.67
26-30	35	3.89	3.66	3.97
31-35	23	4.13	4.09	3.91
36-40	20	4.45	4.30	4.00
41-45	9	4.00	3.00	3.11
46-50	8	3.75	3.50	3.50
51+	6	3.33	4.33	4.33

Group workshops provided by the institution with age groups. There was statistically significant difference between some age groups in their responses to Q14 Group Workshops provided by the institution. The age groups which displayed significant difference were 41-45 and 31-35 (p = .01) 41-45 and 36-40 (p = .005) 41-45 and 51+ (p = .02), 41-45 and 22-25 (p = .001), 26-30 and 31-35 (p = .046), 26-30 and 36-40 (p = .02), 26-30 and 22-25 (p = .002) and 46-50 and 22-25 (p = .03).

Pedagogical support provided by the institution with age groups. In the last pairwise comparisons for this particular question, there is statistically significant difference between some age groups in Q14 Pedagogical support provided by the institution. The age groups which displayed significant difference were 41-45 and 26-30 (p = .04) 41-45 and 36-

40 (p = .03) 41-45 and 51+ (p = .04), 41-45 and 22-25 (p = .001), 46-50 and 22-25 (p = .02), 26-30 and 22-25 (p = .03) and 31-35 and 22-25 (p = .04).

Perceived importance of training and support types and gender. In order to compare participants' gender with the importance of training types based on participants scores a Mann-Whitney U test was used (see Appendix W). There was a statistically significant difference between males and females only in the "Assistance from colleagues" category (U = 1233.50, p = .03). Females (M = 4.05) scored here significantly higher than males (M = 3.61).

Perceived importance of training and support types with other demographics. According to the results of the Kruskal-Wallis test conducted with other demographic items it was seen that there was no statistically significant difference within Q4 and Q5 (ELT Experience and university experience) groups in terms of their scores on the importance of types of training for distance education. Moreover, levels of qualifications and university membership were also tested using Kruskal-Wallis tests and did not produce any significant results (see Appendix X).

Table 11
Interview Codes with Frequencies for Training Efficiency and Training on Interaction

Code	Number of Respondents	Number of Comments
Training on learner teacher interaction-Necessary	17	22
Training on learner teacher interaction-Not necessary	1	1
Lack of or insufficient training	14	16
Training was effective	3	6
Training evaluation-None	2	2

In the interviews participants were asked about training on learner-teacher interaction and effectiveness of the training. The number of respondents and comments are presented in Table 11 and Figure 6. There were 22 comments to the effect that learner-teacher interaction was a necessary important of training. Below are some statements by the participants provided as examples:

> I think those kinds of trainings the teachers should be informed about how can they improve the interaction amount between teacher and the student while they are doing distance courses. For example, the system in our school which is used does not efficient for that kind of interaction. They just only listen to our voice; they even don't see us. They sometimes just open their computer; just attend the class, their names show here but they do not listen. Instructor 5

> Yes, of course. Because… I mean they have to see each other. And if you don't see the students and if you don't interact with them it would be a bit, as I told you, artificial... So, if you can interact the students through maybe email groups, group work, maybe you can use WhatsApp or others so if you can interact with them each other it would be good. But if you don't, if you just do the class in the class, it wouldn't be so helpful I think...For the distance education the teachers should be taught how to interact the students because they cannot see each other. Instructor 8

> In that training, there was technological things. There wasn't anything on learner teacher interaction... I think it would be good because a teacher used to face to face education may have things unknown. I cannot tell you now what I don't know. Instructor 14

All instructors except one made comments about the necessity of training on learner-teacher interaction and described insufficient interaction as one of the main challenges of teaching English online.

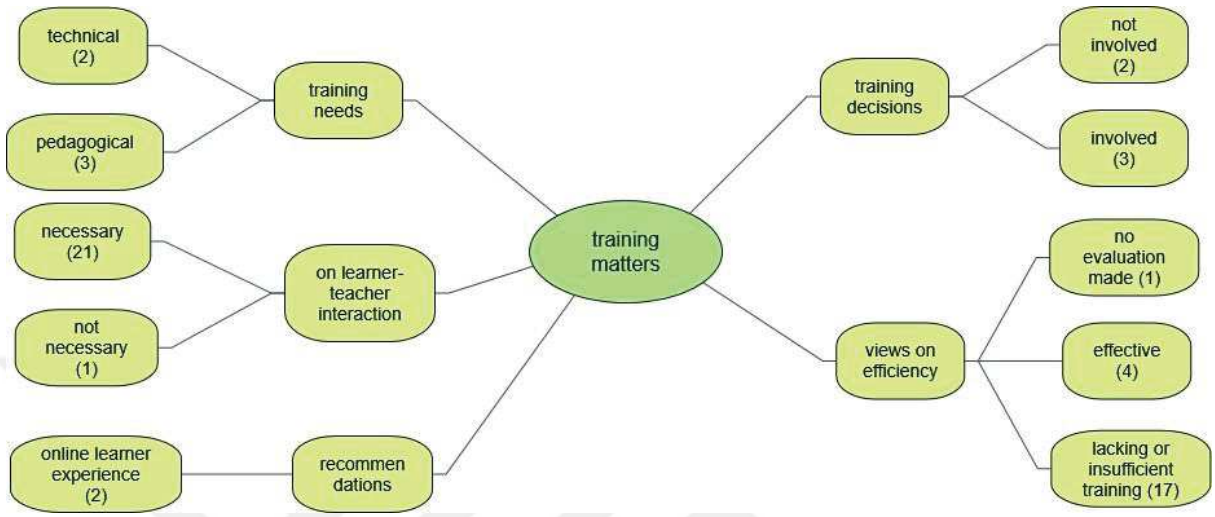

Figure 6. Training matters

Perceptions on training effectiveness. Training effectiveness was also researched as part of the interviews. There were three subcategories in this group of comments. The first was lack of or insufficient training. 14 participants made 16 comments under this category. Below are some examples of the statements they made:

> No training unfortunately. I had my courses for myself online courses for British Council or other institutions but for the distance course teachers or teaching I didn't have any training. Instructor 6

> The instructor responsible for the distance education at our university is my close friend... They emailed us how to apply to the system via the email. So, they emailed us the screenshots of the and we followed. Instructor 10

> They just showed me how to use the system. Because I'm not very good at this... I don't remember. How can I be online, how can I see the class? Just these, no other training. Instructor 7

> ...Adobe Connect. And we learnt how to use it but there wasn't a teaching like this, there wasn't a course like this. We learnt ourselves... Yes, by practising. And that was all. Instructor 9

> Not really, they just showed us they system... Yes. Our usernames, passwords and just how the system works, that's it. Instructor 13

> Yeah there should be. And as far as I remember they taught us how to do this. But it is very limited. We were at a conference hall and I think maybe one hundred maybe more than one hundred teachers or instructors there. They only taught us how to use the system. Nothing else... It wasn't enough. Just the technical support. Instructor 17

These examples demonstrate that the training was either lacking or insufficient. Some had no training at all or do not remember anything about it. For some other training was simply receiving some screenshots from a colleague on the login procedures. When there was some training this was simply providing passwords and demonstrating login procedure sometimes with large number of participants in a conference hall.

There were also comments by three participants to the effect that the training was effective. Some examples are listed below:

> Regarding training I believe our lecturers received good enough training for this. There were several sessions like a certificate programme. Starting the session, answering student queries, to passing the microphone, recording the videos and uploading them on

> the system, uploading materials and all sorts of problems an instructor will come across. Director 1

> We had some verbal feedback but didn't record it on paper... Yes, and they said they found it effective and we also observed this during the training. How? For example, when an instructor couldn't start the synchronous lesson software and was anxious, or couldn't record the session we saw that a majority started using it more effectively. In fact, we saw a leap there, the instructor reached a place but we didn't record this or prepare an exam. Director 2

> They're English teachers, we choose English teacher etc. That's why they don't need any training about the content but in technical terms they need. And also, we give them at the beginning of the semester we have a meeting and for one or two hours by slideshow I teach them how to enter the system, KABUZEM system as we call at Karabuk University. And after teaching them technical terms that's enough for them. Director 4

All the above comments were made by directors working at different universities. Their perceptions of the training's effectiveness are in contradiction with those of the instructors as reported above. One explanation is that the training itself may have been brief and in the form of a simple demonstration without any practice. In any case, the discrepancy in their comments show that there is a difference of approach to the training issues by the instructors and directors. There were two other comments from two directors which showed that there was no evaluation of the training provided.

> No, there was no evaluation as to whether they found the training efficient or how it can be improved. Director 1

In the case of those classes Foreign Language 1 and 2 we didn't get any feedback, we didn't ask. Director 3

These two directors' statements unveil the reason for different comments by directors and instructors on training efficiency. There was no feedback or evaluation from instructors in at least two cases and therefore, directors relied on their judgment rather than instructors' views on training efficiency. This, as a consequence, led to very different responses in the interviews. In terms of this research study it was important to find out this discrepancy in order to build it into the results and suggestions for any future training.

Availability of support and training. The questionnaire had a specific question about the availability of certain types of support and training. The percentage for each type of support is provided in Figure 7.

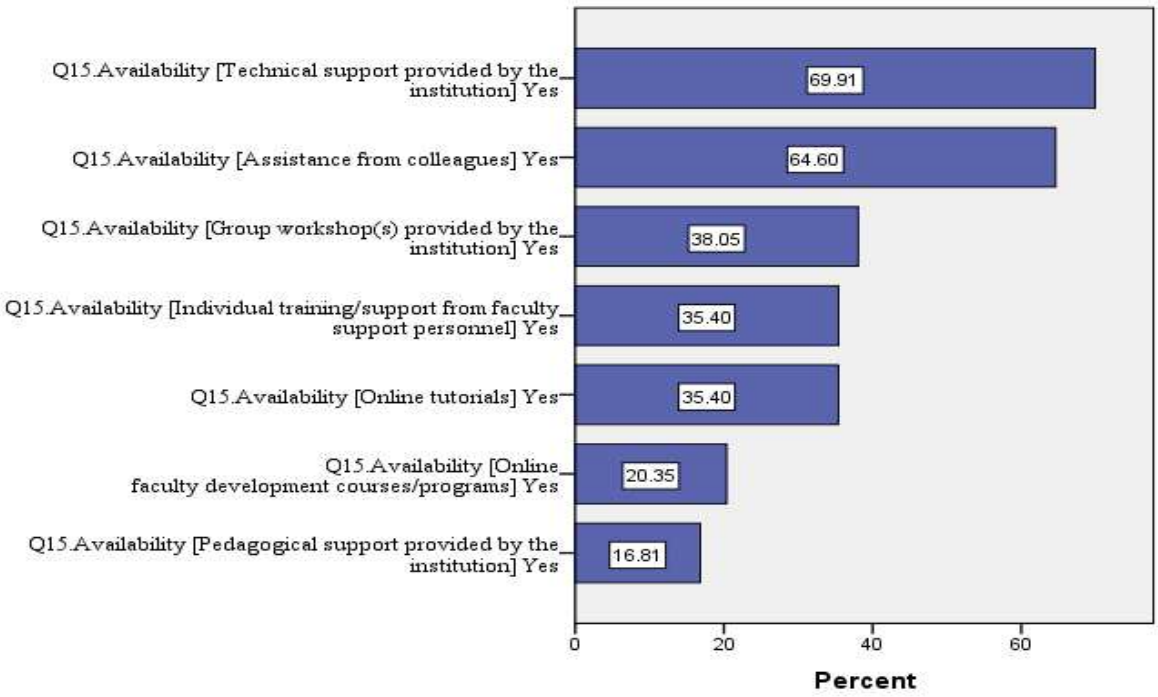

Figure 7. Availability of support types.

The interviews also asked about what types of support was available to instructors. In their comments, there were three main types:

- technical support (7 comments from 6 participants),
- support from colleagues (6 comments from 6 participants)
- support from group meetings (one comment from one participant)

The data from the interview confirmed the findings of the questionnaire data. The first three most available types of support in the questionnaire were also commented on in the same order in the interviews. The codes related to support which emerged during the interviews are displayed in Table 12 with their frequencies as well as in Figure 8.

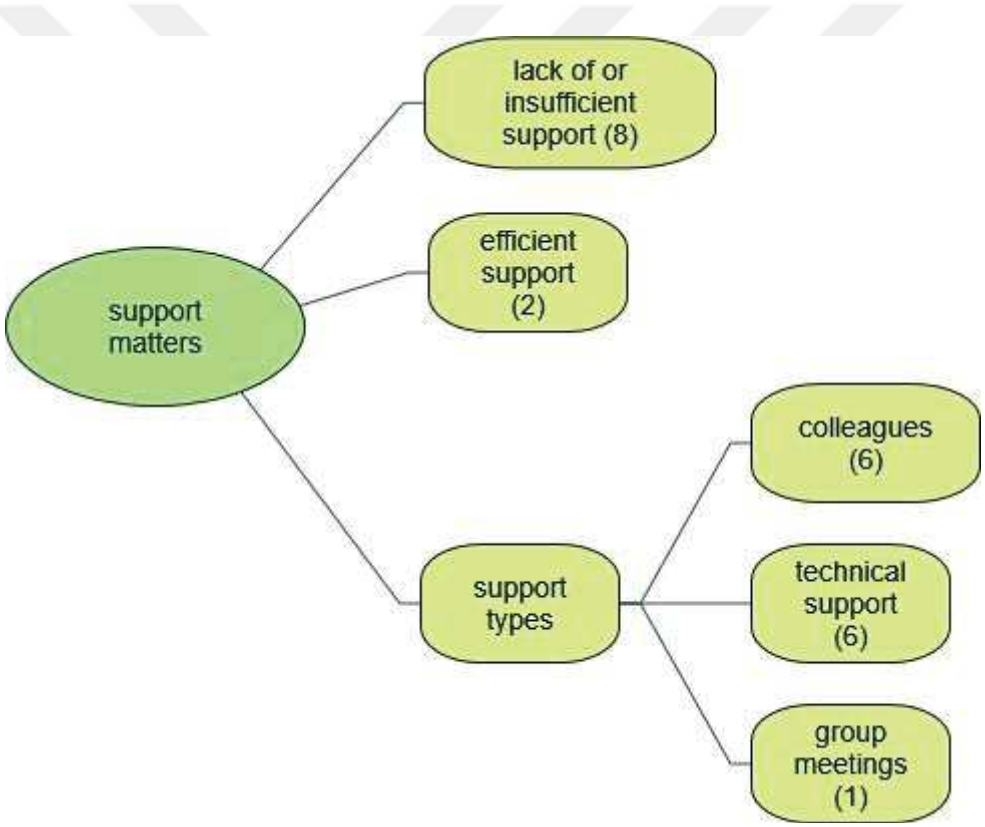

Figure 8. Support matters

Below are some examples of the comments for each support type identified in the interviews:

... when they had questions, they asked our deputy heads who is responsible and who is capable of doing such technical things. They get help from him. Director 3

In fact, in many things our teachers call us or email us. They call our committee, one of them. Director 4

Certainly yes. Because I was confused at the beginning because I hadn't experienced distance education teaching actually before. But after my colleagues supported me how to use the system or how to apply to the system, I felt confident. I could deal with all these types of distance education. Instructor 10

Actually, if I have problem, technical problems... I once had it because I could not use the microphone of the computer I pressed the wrong button and I went to the technical … from this department. I took my computer to them and he fixed it. Instructor 11

These comments are all about situations where there is support from colleagues available. Sometimes management and sometimes more experienced colleagues are asked for support in problem situations again.

Table 12

Interview Codes with Frequencies for Support Matters

Code	Number of Respondents	Number of Comments
Lack of or insufficient support	8	8
Support-efficient	2	2
Support type-Colleagues	6	6
Support type-Group Meetings	1	1
Support type-Technical support	6	7

Another form of support came in the form of group meetings as in the following example:

> Yes, group meetings. We as administrative office and also the other instructors that give the via distance classes. So, after we meet, attend the meetings yes, I can say that we are more confident in terms of solving our problems. We share our problems and we bring a common sense to what we can make. Instructor 15

This is especially important as this is a structured and regular form of meeting. It is not only in emergency situations and is beyond technical help and support. A final form of support which was mentioned in the interviews was technical support. In the comments below it is possible to see how this support is offered:

> In the synchronous classrooms, there are two types of support. We have moderator support. The instructor is present and a technical member of staff from the Distance Education Centre is present to support. This also had stages. Initially the technical member of staff did everything for some instructors they even forwarded the slides. Then instructors improved and although he (moderator) is still present he only steps in when necessary. What we aim for the future is that the online support will be on our website accessible when needed. Apart from the synchronous sessions we also help with the materials. The instructor prepares the raw materials and we fit it into the template prepared by our educational designers, it has questions to be used after the lesson, tips and more interactive applications as well. Director 2

This particular comment is important in terms of providing technical support with materials along with general technical support during the synchronous sessions. In many situations, there is technical support provided initially and then gradually it is withdrawn:

> Yes, there is an admin most of the time, especially at the beginning. Afterwards, when the instructors have learnt well, this admin support was withdrawn and the instructors

took full responsibility. There was also an admin for every instructor so even through a phone we could get this support but there wasn't much need. Director1

For synchronous class support we see what instructors cannot do and support them on those. For example, in live sessions we have technical support because the instructor cannot do it himself... As a guarantee, we have technical support at first. They see the instructor cannot do something, then they assist. Director 2

In general, the support offered is technical and does not cover other areas as can be seen in the following comments:

No. No pedagogical support. I mean they don't have training combining ELT and CALL. They just get technical help from them. Director 3

Sometimes there are a problem about the internet connection and they interrupted me when there is a problem about the internet connection. They told me that "Everything is going OK hocam you can go on" some things like that, of course that affected me good. And they told me how to use the website etc. Instructor 3

Yes, we have just a department for technical problems but they don't know about the content or the students or what we do. Just if we have any problems on the system, they just solve it that's it. Instructor 13

In summary, there is a general dissatisfaction with the amount and type of support being offered to the instructors.

Perceived effectiveness of support. There were 8 participants who said support was lacking, not effective or not sufficient whereas only two made comments to say that they

found it sufficient/effective. Both comments that said the support was effective/sufficient were made by directors and not any one of the instructors.

> My observation and opinion is that they find it sufficient. Director 2

> I guess, I guess… I believe I'm really experienced about distance education for three years as I said. And I tell everything they need. Director 4

The remaining comments on effectiveness of support are all negative. They are either about lack of support or insufficiency of it. These comments were made by eight instructors. Some examples are presented below:

> We're at home, we just start our computer and save the class then import the file and start teaching...That's it. Instructor 1

> No training but it must be more organised. Support yes, if there is a technical problem support came. But what I need is, what I want to say is that I have to learn to use the technical devices. Instructor 2

> We have some documentations about the technical problems and their solutions here. But I haven't used them yet. Instructor 5

> Yes. Because for two years I have been doing the same thing, for two years even the materials are the same. Instructor 17

In some cases, support was lacking and in others technical support was provided only when there was a major problem with the lessons. There was not support for continuous professional development or to further improve the quality of the online English classes.

As can be seen in the comments from the interviews there is a discrepancy between the views of instructors and directors in terms of the effectiveness of the support being

offered. Directors tend to believe support is sufficient and efficient however comments by the instructors said otherwise. Where there is support available this is frequently in the form of support from colleagues or technical support from an admin at distance education centre and not a language teaching specialist.

Perceived ICT competence. The seventh question in the questionnaire was a self-assessment of the Information and Communications Technology (ICT) competence. The options provided were novice user, medium-level and expert user. The majority of participants perceived themselves to be medium-level users, followed by expert users (see Figure 9).

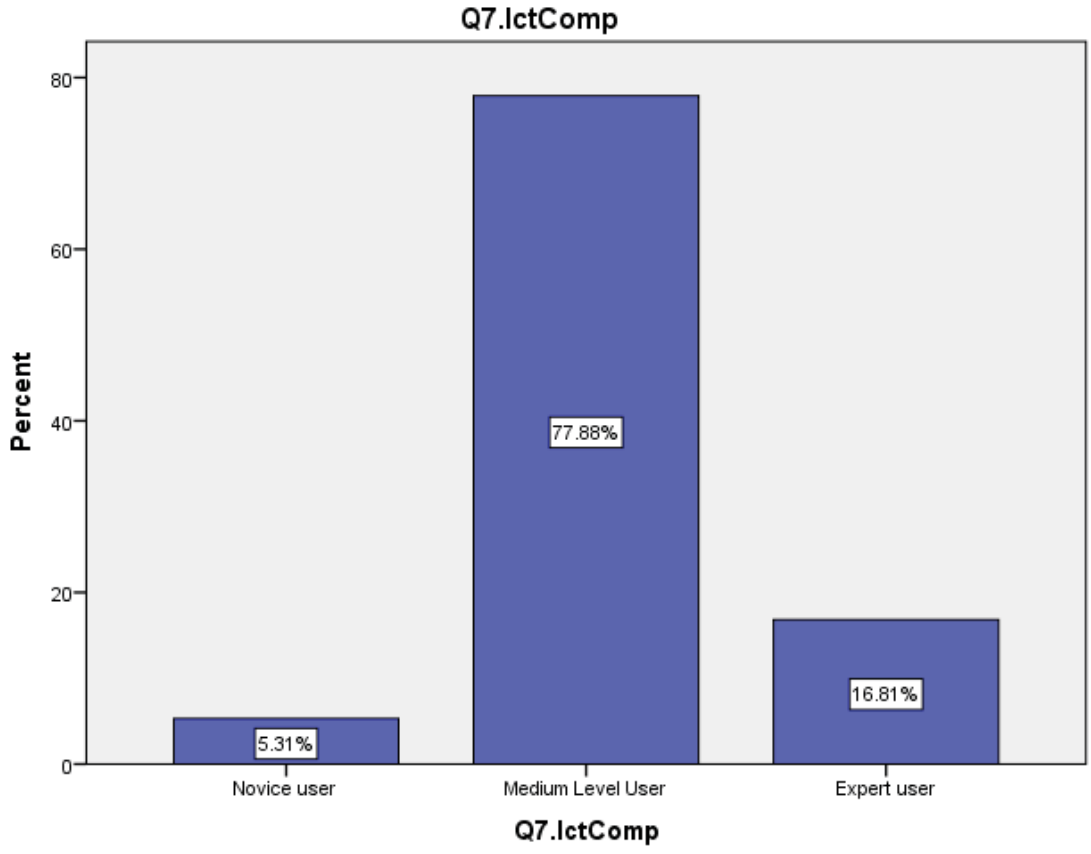

Figure 9. ICT Competence Percentages

ICT competence-gender. The perceived ICT competence is an ordinal scale. Therefore, in order to establish its relationship with gender a non-parametric test was used.

Because there were two levels in gender, a Mann-Whitney *U* test was conducted. The significance level in the Mann-Whitney *U* test for the ICT competence levels of male and female participants was above the determined value (p = .05). Therefore, it is possible to conclude that there was not a statistically significant difference between male and female participants between their perceived ICT competence levels (see Appendix Y).

ICT Competence with other demographics. In order to test whether there was a statistically significant difference between ICT Competence Level with Age Groups, Qualifications, ELT Experience Groups, University Experience Groups and University Membership Groups a set of Kruskal-Wallis tests were used. Where there is a meaningful difference in the test results of Kruskal-Wallis test there needs to be a pairwise comparison between pairs of subgroups to find out between which subgroups there is a meaningful difference. Buyukozturk (2016, p. 171) explains that although Mann-Whitney *U* test can be used to carry out pairwise comparisons, a non-parametric multiple comparison technique is preferable. He argues for using the pairwise comparisons under the Model View which exists in SPSS 18 and later versions of the programme. However, these tests showed that in terms of their perceived ICT competence levels there was no statistically significant difference within these demographic groups Q1, Q3, Q4 and Q5 (p = .84, p = .95, p = .67 and p = .91 respectively). Similarly, for university membership there was no statistically significant result found (p = . 85) (see Appendix Y).

Personal and professional computer use. In order to find if there was a relationship between perceived ICT competence and computer use, two questions were formed with a list of items on computer use for personal and professional needs.

The first question (Q8) asked about personal computer use and included various uses of computer and internet for personal communication or other personal goals. Each item was

scored according to frequency of use by the participants. For each item on the list a matrix was formed including frequencies within the range daily (4), 2-5 times a week (3), once a week (2) and once a month or less (1).

The most frequent form of personal computer use is search tools (*M* = 3.89). This is followed by News (*M* = 3.63) and for social media such as Facebook twitter etc. (*M* = 3.55). On the other hand, use of computers for entertainment or games was the least frequent (*M* = 2.03). The frequency means for personal computer use items can be seen in Figure 10.

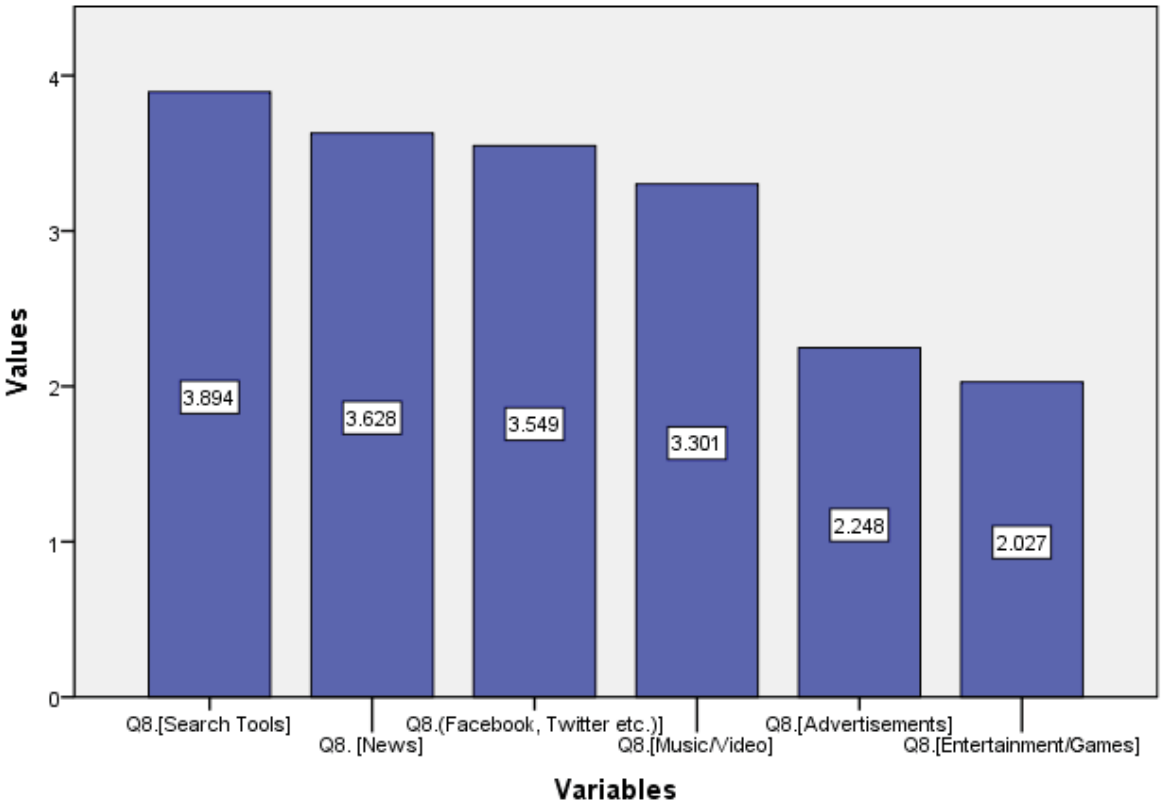

Figure 10. Frequency means for personal computer use items.

Question 9 in the questionnaire asked about professional computer use. The items here identified uses of computer and internet for professional goals. They were scored in an ordinal scale according to their frequency of use (1-4). The most frequent item in the list of

computer use for professional reasons was "Email to students or colleagues" (M = 3.27) very closely followed by Word processor (M = 3.25). The least frequent item here was "picture/photo editing" (M = 1.99). The frequency means can be seen in Figure 11.

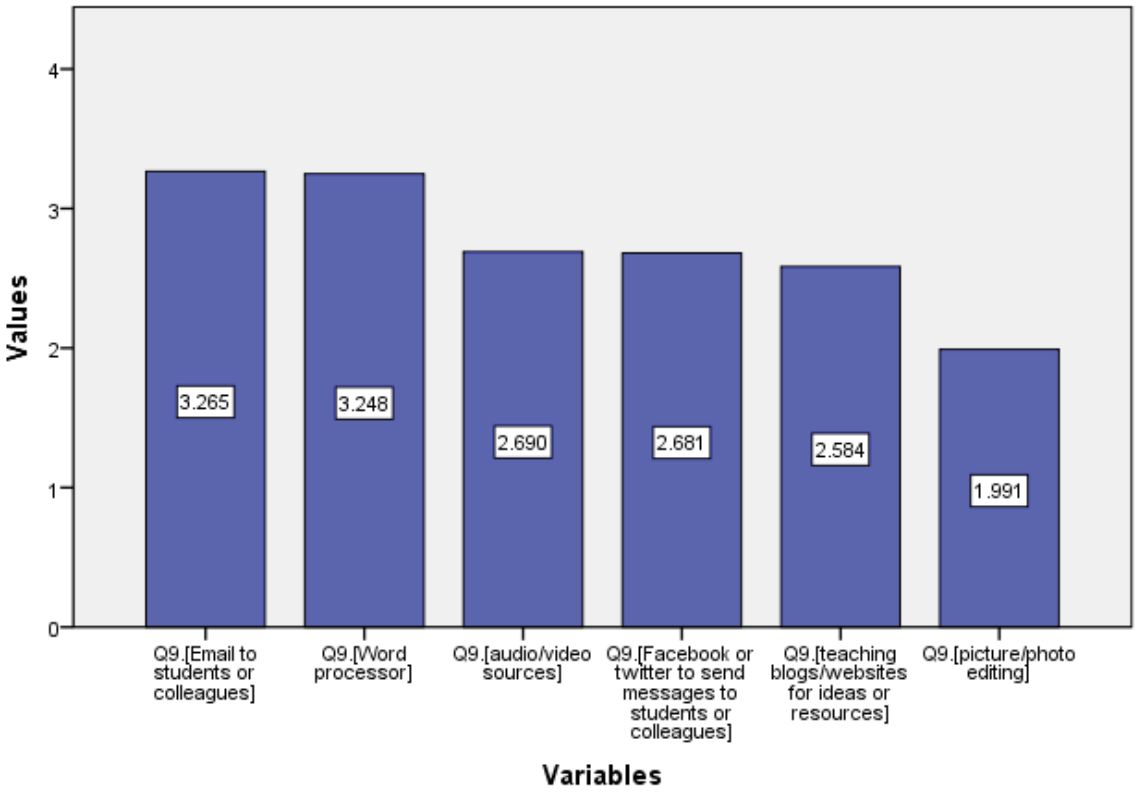

Figure 11. Frequency means for professional computer use items.

Perceived ICT competence and computer use. Q7, Q8 and Q9 are ordinal scale items. Therefore, they are suitable for a non-parametric test of correlation (Cronk, 2008). In order to identify the correlation between perceived ICT competence (Q7) and personal computer use (Q8) and professional computer use (Q9) Spearman's Rho non-parametric test was used. The first test was run between Q7 and Q8 items. The results are displayed in Table 13. Studying the results of the Spearman's Rho test it was evident that ICT competence groups in question 7 and personal computer use items in question 8 "News" (r_s (111) = .21 , p = .03) and "Entertainment/Games" (r_s (111) = .19 , p = .045) showed a correlation at a statistically significant level. Correlation coefficient between 0.70-1.00 is considered large whereas 0.30-

0.70 is medium and 0.00-0.30 is small (Buyukozturk, 2016; Cronk, 2008). Therefore, it is possible to say that there was a small positive correlation between each of these items and the self-assessment level of ICT competence.

Table 13

Correlation Coefficients for ICT competence and Personal Computer Use

	Q7.IctComp	Q8-a	Q8-b	Q8-c	Q8-d	Q8-e
Q8-a (Facebook, Twitter etc.)]	-.14					
Q8-b [News]	.21*	.20*				
Q8-c [Advertisements]	.09	.13	.23*			
Q8-d [Entertainment/Games]	.19*	.14	.10	.32**		
Q8-e [Music/Video]	.08	.23*	.10	.16	.21*	
Q8-f [Search Tools]	.07	.18	.24**	.26**	.16	.22*

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

The second test was run between Q7 and Q9 items. The results are displayed in Table 14.

Table 14

Correlation Coefficients for ICT competence and Professional Computer Use

	Q7.IctComp	Q9-a	Q9-b	Q9-c	Q9-d	Q9-e
Q9-a [Word processor]	.12					
Q9-b [Email to students or colleagues]	.15	.39**				
Q9-c [Facebook or twitter to send messages to students or colleagues]	-.02	.17	.37**			
Q9-d [picture/photo editing]	.10	.17	.14	.43**		
Q9-e [audio/video sources]	.24*	.20*	.36**	.43**	.45**	
Q9-f [teaching blogs/websites for ideas or resources]	.18	.13	.41**	.26**	.23*	.41**

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

Among the items listed under Q9 there was only one to show statistical difference which was “audio and video sources” (r_s (111) = .24, p = .01). The correlation here was

positive and small. All the other items had *p* values above .05 and therefore did not display a significant correlation with perceived ICT competence.

Confidence in using technology to teach online. In relation to a question in the interview about whether participants feel confident about using technology in teaching online, 15 participants said they felt confident whereas 2 said they were not. These were all English Language instructors with at least one semester teaching online experience. A follow-up question was asked to find out whether this confidence or lack of it was affected by training and support facilities. 14 participants said training and support had a positive effect on their confidence. On the other hand, there were 3 interviewees who said training did not influence their confidence. The categories of responses and their frequencies are presented in Table 15 and Figure 12.

Table 15

Interview Codes with Frequencies for Confidence in Using Technology to Teach Online

Code	Number of Respondents	Number of Comments
Confident in using technology	15	15
Not confident in using technology	2	2
Effect of support and training-positive	14	14
Effect of training-neutral	3	3

In terms of confidence in using technology, majority of the instructors said they were confident whereas some said they were not. Below are some examples of the comments made by the participants under this category:

> I was a bit scared and embarrassed on the first and second lessons. Then it just went away. It's easier because everybody can hear you. You are on your own computer so when you, for example, go to another class you open the turn on the computer you see

> the teacher's whiteboard materials. Sometimes there's a problem with the computer, sometimes you cannot use the whiteboard because of synchronization problems. But you don't have such a kind of problems in your own computer. You're more relaxed and you can do this in your home. So, you feel comfortable. Instructor 8

> Actually, I was scared that I was gonna do something wrong... I feel much more confident when I compare for the first time I taught. Instructor 11

> At the beginning, I felt unconfident. With time, I got used to it and felt better. Instructor 14

> Very confident, very confident. I liked it, I loved it. Even more than this, more than traditional face to face education. So, I like this education. It is very enjoyable. It is something to present on radio or television, something like live broadcasting. Maybe what I am saying is personal, I liked it. But for other teachers the case may be different. Instructor 2

> I get it. Actually, our system, online system, is quite easy to understand and to do exercises you just upload the material of that week, of that class and then you begin to instruct the topic. For that I am personally quite confident in using the technology concerning the via distance education. Instructor 15

The above comments demonstrate that for some instructors gaining confidence was a gradual process and came with experience. On the other hand, there were other instructors who said they were not confident in using technology:

> I'm not very confident about technology. I can only login the website and then teach. I cannot do anything else, I cannot record a video or send a video to the students. I'm not very good at technology. Instructor 16

> I don’t trust myself. Because I think it is really difficult to teach someone via internet. It is really difficult because I want to see them face to face, I want to be face to face with them, I want to be more interactive with them. So, in fact, I don’t trust in myself. Instructor 17

The reasons for not being confident was different as can be seen in the comments. One participant did not feel confident due to a general problem with using technology. The other participant did not feel comfortable in virtual environment and preferred face-to-face teaching.

Effect of training and support on confidence in using technology. Since the aim of this research study was to find out perceptions of the participants on training for distance education, some questions in the interview asked about training and support activities. Here the objective was to see if training and support had a positive effect on confidence in using technology or not. 14 instructors said training had a positive contribution to their confidence:

> Yes of course. At least we learnt the link where to use, how to use. Instructor 1

> ... it affected of course well, in a good way because in the beginning I didn’t know how to enter, how to login. Instructor 16

> Yes, of course. They told us that do your first or second classes without recording then we got used to the system, then we started recording the classes. Instructor 8

> Yes, we have just a department for technical problems. But they don’t know about the content or the students or what we do. Just if we have any problems on the system, they just solve it, that’s it... Positively, of course. Instructor 13

> Sometimes there are a problem about the internet connection and they interrupted me when there is a problem about the internet connection. They told me that “Everything is

> going OK hocam, you can go on" some things like that, of course that affected me good. And they told me how to use the website etc. Instructor 3

These instructors talked about a positive influence of training and support however minimal it may seem. It is also possible to see that training and provision of support is not extensive. Below are two more comments found relevant to this subcategory:

> I didn't have but if I had one of them of course they would really help me... to solve the problem more quickly, I guess. Instructor 12

> Yes, they can affect, of course they can affect but there is no support like that... Because for two years I have been doing the same thing, for two years even the materials are the same. So, if there was a support like that it would be really effective. Instructor 17

These two instructors said they did not receive support, but they would have liked to have this kind of provision. Their comments were therefore not about an existing support scheme but a hypothetical one.

There were also neutral comments about how training and support affected confidence of the participants in using technology online.

> No training, but it must be more organised. Support yes, if there is a technical problem support came. But what I need is, what I want to say is that I have to learn to use the technical devices. Instructor 2

> No. The only support is the prepared materials. Instructor 4

> I'm not affected by any kind of training...I trained myself about technology since my childhood. Instructor 5

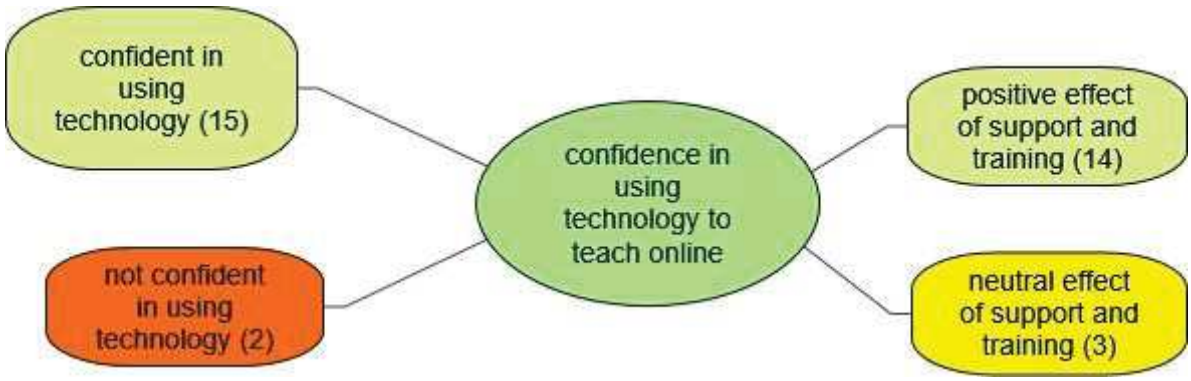

Figure 12. Confidence in using technology to teach online

It can be seen in the above comments that participants in general felt confident in using technology. Some felt confident from beginning as others developed this during the teaching process. Overall, it was seen in the research data that there was not extensive training or support facilities to prepare instructors to teach English via distance. When some training or support was offered, this generally contributed to the confidence of the instructors to teach online. Some instructors also said they felt confident due to their previous ICT competence which they utilized in this context.

Research Question 3

How are the elements of training determined?

Corresponding questions.

Interview with directors.

- Can you briefly describe how the English via distance course has started?
- Is there anything that makes this course different from face to face counterparts?

- What kind of specific training needs do distance English language teaching faculty members have?
- Who decides on the content of the training? How is this decision made?
- Is there any evaluation of the course? If yes, how? Do you find it efficient? How can it be improved?
- How are the faculty support activities and materials selected? What kind of criteria do you use for the implementation of faculty support activities?

Interview with instructors.

- Can you briefly describe how the English via distance course has started?

In the director interviews, some questions were asked in order to have a better understanding of the training process. Especially decision to move from traditional face-to-face classrooms to online teaching, training needs of instructors and any suggestions for improvement were asked to the participants. The responses with frequencies can be seen in Table 16.

Training decision process. Regarding the planning of the training to prepare ELT instructors to teach online, two directors said they had some involvement whereas the other two said they had no involvement at all. Below are the comments made under this category:

> We can say a meeting, assistant directors and I came together, we discussed what the content of this course should be and planned. We formed an outline and content, formed headings and sub-headings. While preparing this training we benefitted from manual we had prepared for using Adobe Connect and Moodle LMS. In fact, we can say that these formed the basis of our training. Director 2

They're English teachers, we choose English teacher etc. That's why they don't need any training about the content but in technical terms they need. And also, we give them at the beginning of the semester we have a meeting and for one or two hours by slideshow. I teach them how to enter the system, KABUZEM system as we call at Karabuk University. And after teaching them technical terms that's enough for them. Director 4

Table 16

Interview Codes with Frequencies for Training Decisions, Training Needs and Recommendations

Code	Number of Respondents	Number of Comments
Training decision process - Involvement	2	3
Training decision process - No involvement	2	4
Training needs - Pedagogical	2	3
Training needs-technical	2	2
Training recommendations - online learner experience	2	2

The involvement of Director 2 is more at the planning level of the training. There was a meeting arranged at their department and certain decisions on content were made. These were made by the management and focused on the technical aspects of the LMS as was understood in the comments. The second comment by Director 4 is an indication that there is no assessment of training needs as it only focuses on technical training provided in a single session using a PowerPoint presentation. There were two other directors whose responses indicated no involvement with the training process.

Trainers working at the Distance Education Centre... I wasn't asked about what will be shown or taught... it was a package programme. They roughly guessed what would be

needed and prepared something general. Not just for foreign language but for all common courses including History of Revolution and Turkish Language, all instructors were given standard training about the use of the system. Director 1

So far, we haven't given training...In the case of Open and Distance Education I don't know what they gave as a training but it was in line with the content of the platform. Where to maybe… what to use, how to? They decide, the Rectorate decide. I mean we don't ask for help here. Since they decided these classes Foreign Language 1 and 2, History and Turkish Language will be done in that way and then they decided to give training. Because they are also aware that teachers will need training. So, we don't decide; the Rectorate, Open and Distance Education Faculty and the Council of -we call them "ortak dersler"- they decide together. Director 3

None of the directors here had any involvement in the decision to move to online education. The latter two directors were not consulted even at the implementation stage. They were simply given a standard training which was given to all other common compulsory courses. There was no differentiation for English language teaching.

Training needs. The comments on training needs were grouped into two types; namely pedagogical needs and technical needs. These were taken from the interviews with the directors and related to a question on how the training process worked. Two directors made 3 comments on pedagogical training needs for teaching English via distance. On the other hand, two directors made two comments on training needs in the technical areas. The comments below are given to demonstrate what training needs were identified in the interviews and how the directors found out about those needs:

> In order for instructors to teach via distance there are two types of knowledge as you know. Firstly, how to use the synchronous lesson environment, we use Adobe Connect secondly how to add materials to the LMS. We do not expect very good command but sufficient to meet their needs. How to add and delete materials; how to write, add and delete questions; how to share desktop with students during synchronous lessons; how to add materials to the synchronous environment; how to pass the microphone when students ask in order to manage the environment. Director 2

> And also, we give them at the beginning of the semester we have a meeting and for one or two hours by slideshow I teach them how to enter the system, KABUZEM system as we call at Karabuk University. And after teaching them technical terms that's enough for them. Director 4

Technical needs were recognised by two directors who commented on those above. The comments showed two extremes in this respect. One was very simplistic and stated that training could be provided in a single session using a PowerPoint presentation. The other comment was more detailed and described specific functions of the LMS.

Next category was pedagogical needs of the instructors to teach online. There were two comments under this category by two directors:

> They're English teachers, we choose English teacher etc. That's why they don't need any training about the content but in technical terms they need. Director 4

> Interaction between instructor and student and how to regulate interaction among students, they need to have these skills. If the instructor is just delivering a lecture in front of camera and the instructor is in a giver position whereas the learner is receiver, then there is no need for synchronous lesson there could be an asynchronous video

> recording which then is uploaded online. He needs to integrate some technologies and attract students to the lessons, use the desktop effectively, open a video there or a webpage, get students to interact with each other, ask them questions and wake them up, attract them asking "Ahmet, what do you think of this?" etc., encourage students. Mostly our students participate by writing in synchronous classes now. This is another topic of research. The instructor should encourage audio-visual participation as well. The students are also a bit shy since this system is a bit new. The instructor should also possess such skills. When he has all these skills, we can say he can teach online with quality. Everyone can teach online but does it have quality, well no. Director 2

Again, the polarity of views from two directors is evident in their responses. One of these took pedagogical aspects of teaching online for granted. English teachers were expected to teach effectively in this new medium even without any training of pedagogical implications of teaching in a new environment. The other comment was very detailed and included mainly effective use of interactive skills with the students and with the online environment. Integrating new technology, keeping students interested, effective use of the desktop (probably the shared screen in LMS), use of audio visual technology along with instant messaging features and encouraging participation were some of the skills mentioned here. These comments came from the two directors who were involved in the planning stage of the training sessions mentioned earlier. Their approach to necessary skills would be expected to make a difference in the aim and objectives, content and the outcomes of the training. Although there was significant coverage of this matter in his interview, there was no indication that pedagogical aspects were covered in the training organised by Director 2. Rather, his more general research interests were reflected in this response and were not realised in the actual training.

Training recommendations. Two directors made two comments on how to improve training for English Language instructors to teach via distance. One of these two comments was on providing distance learner experience to the instructors. The other comment included providing continuous training to support instructors.

> ...if he experiences this himself and takes part in distance education as a learner, he can plan from a learner's perspective. "How should I treat learners? What is the psychology of the learner?" these he experiences himself...If we teach about distance education via distance education, it will be better. That is a target for the future. Director 2

> It can be improved I think it must be regular. Because when you give the training at the beginning of the semester and then you don't give any more training, teachers can face with other problems and they may give up using that platform, digital platform. So, I think the training must be regular. And in the training teachers' skills can be developed if it is regular. When teachers are capable of doing something, when they have a new skill in the next training, you can provide them with another skill. In that way, they can improve their digital literacy gradually. Director 3

There are some important points to note while reading these two comments. One is that online learner experience should be made necessary to teach online. This also confirms the questionnaire results because there was a significant difference between instructors' perceptions of distance education depending on whether they had learner experience in distance education or not. Improvement in attitude towards distance education can present itself as improvement in teaching in that medium. This conclusion was also confirmed by the comments by Director 2. The second recommendation focuses on the continuity of training with regular training and support sessions. It emphasizes the gradual development of teaching

skills and therefore indicated that the use of regular and specific training sessions can help resolve issues that distance English instructors experience.

Chapter 5- Discussion, Conclusion and Recommendations

Discussion

In this section, the research findings from each research question will be summarized. Findings from the current research study will be compared and contrasted with the findings from previous research studies covered in the literature review. Researcher interpretation of these comparison points will also be added to the discussion to provide a better understanding of the relationship between the current study and the previous ones. Numerical data are not contained in this section, nor are the tables and figures. Such data is available in the findings section.

Research question 1 summary of findings and discussion.

- What are the perceptions of a group of in-service English Language instructors at selected Turkish universities towards distance education?

There was an above average mean score for the participants in terms of their perceptions of the value of distance education. The mean scores were higher in the age groups 36-40 and 31-35 than the others. However, this difference may not be interpreted as causality. After a crosstab analysis of age groups and previous distance education analysis, it was found that the percentage of participants with learner experience and both teaching and learning experience were higher than those without learner experience (only teaching experience or no experience with distance education groups). In terms of gender differences, male participants scored significantly higher than the female participants.

With interview questions deeper information was sought from the participants. The responses here confirmed the questionnaire results. 12 of 17 participants made comments that at least one of the four skills can be taught better online. Some of the statements were not

about their personal classes but about hypothetical situations. Interestingly, comments of some instructors on teaching grammar using distance education and teaching writing as a skill are supported by research into specific skills in text-based distance education interactions. Previous studies by Ortega (2011) and Ekmekci (2017) also correspond to the results here especially in relation to teaching writing and grammar.

In the current study there was more mention of challenges of teaching online than the rewards in the interviews. 23 comments were made in five categories under rewards of teaching online and 36 comments were made in eight different categories under challenges of teaching online. This is an indication that in the teaching experience of these instructors there were more challenges than rewards in quantity and/or in quality. The challenges identified included insufficient interaction, attendance, technical difficulties, classroom management, motivation, lack of good quality materials, distractions due to computer use and managerial approach to course. The rewards identified were convenience, technical advantages, lack of emotional pressure, opportunity for students and personal satisfaction.

A study by Chen (2012) found that teachers' perceptions on strengths of online teaching were flexibility and working from home. On the other hand, the weaknesses identified by the participants were technical issues and navigation in the LMS platform. Although some of the rewards and challenges were also identified in previous literature there were new ones identified in the interview comments.

The role of previous personal experience with distance education on the perceived value of distance education was also part of the questionnaire. There was statistically significant difference between groups Both-None and Both-Only Teacher Experience. What caused the difference between these groups was the learner experience in distance education. However, teaching experience in distance education did not yield any significant difference

on its own. In summary, statistical tests with the participants showed that having learner experience in distance education is a factor which brings a higher score in the perceived value of distance education. The interview feedback showed variation. Some presented a negative view of distance education and some positive. All of the instructors interviewed had at least one semester of English teaching experience via distance medium. The majority experienced distance education as a teacher and not as a learner. Therefore, the feedback from the interviews focused more on challenges, problems and negative attitudes towards distance education. The comments about four skills being taught online also showed that these instructors have not been exposed to a distance education course as a learner. The interview data confirmed questionnaire data that those participants with only teaching experience had a lower perception for value of distance education. This finding is also in agreement with the previous research studies such as Holmes et al. (2010), Arsht (2011), Adnan et al. (2017) and Adnan and Boz (2015) where they found online learner experience contributed positively to perceived value of distance education.

Research question 2 summary of findings and discussion.

- What elements of support and training are perceived to be important by instructors?

First, training elements in distance teaching were considered. It was observed that Technical Aspects scored higher than other aspects of training to teach online such as Pedagogical Issues and Assessment. Age groups differed in their scores on Assessment and Pedagogical Issues. 22-25 and 51+ groups were higher scorers in both training elements than the other age groups. ELT experience and University experience groups also had higher scores for Pedagogical Issues for younger participants. Those with 1-5 years of experience scored highest in both groups in their scores. This result is in line with the age groups comparison above as younger age group scored higher in pedagogical issues category. In

terms of gender differences females scored significantly higher than male participants on Pedagogical Issues. That means the importance attributed to Pedagogical Issues was higher in female participants' responses. University membership was another factor in the data analysis. Staff working at University 3 scored significantly higher than staff at University 1. Correlation tests showed that there was a small positive correlation between the scores of Value of Distance Education and Assessment. There was also a medium positive correlation between Value of Distance Education and Technical Aspects. Those who scored highly in the value of distance education also scored highly in Assessment and Technical Aspects scores.

Second, the importance of various types of support and training was considered. The highest score was for Technical support from the institution, the second was Individual training/support from faculty support personnel and the third Online tutorials. The lowest score was for Assistance from colleagues. The low value of team collaboration was also one of the findings in an earlier study. Erdem Aydin and Gumus (2016) carried out their research among 118 Turkish learners studying at a particular online university degree course. The results revealed that there was preference for individual learning rather than group learning activities. The main two reasons for this preference were provided as communication problems and (lack of) fulfilling individual responsibilities in a team.

There was a statistically significant difference among Age Groups in terms of importance scores for Online tutorials, Group workshop(s) provided by the institution and Pedagogical support provided by the institution. Age group 22-25 had the highest scores in all three types of support and training. Gender difference played a role only in Assistance from colleagues category under which females scored significantly higher than the males.

Comparing the results of Chi (2013) and Arsht (2011) with the current study it is possible to see that pedagogical issues and assessment are not seen as significant as technical

training by the participants in the questionnaire study in this particular research project. The importance of those two aspects were lower than technical aspects of the training. One assumption was that this difference in perception from the previous research literature may be due to low level of experience as learners in distance education (N = 30) compared to those who had only teacher experience or no experience in distance education (N = 83). However, further tests of Kruskal-Wallis showed this was not the case and there were no significant differences between those with previous distance education experience and those without.

The interview questions aimed to get a deeper understanding of what training elements were perceived important by the participants as well as effectiveness of past training preparing them to teach online. The comments revealed that learner-teacher interaction was an important element that they wanted to have training on. All instructors excluding one made comments about the necessity of training on learner-teacher interaction. Earlier, in the instructor interviews, insufficient interaction was identified as one of the main challenges of teaching English online. This result from the interviews is also supported by relevant research such as Eom and Ashill (2016), Munoz Carril et al. (2013) and Kuo et al. (2014).

On the topic of training effectiveness there were three participants who said that training was effective. These were all directors working at the selected universities. Moreover, two directors said they had no evaluation of the training to teach online. On the other hand, majority of participants said the training was insufficient or did not exist at all. In the comments, training was usually reported to be limited to some technical aspects of using the LMS such as login procedures. It was also recorded in the interviews that training was delivered in a large hall attended by masses. The discrepancy in directors' comments and instructors' comments on training effectiveness shows that there is a difference of approach to the training issues by the instructors and directors.

In the questionnaire there was also a question on the availability of the types of support provided to the online teachers. Among the elements listed there Technical support from the institution, Individual training/support from faculty support personnel and Online tutorials were rated the most important support and training types. Technical support was also the most available item on the list of support and training types. Assistance from colleagues was the second most available item although it was rated the least important earlier. Although there was good will and availability in this support type, lack of expertise may be the reason why assistance from colleagues was not perceived as important. The third item in terms of importance, online tutorials, was rated available by about one third of the participants. Group workshops was ranked the third in terms of availability.

The interviews also asked about what types of support was available to instructors. The first three types of support available were technical support, support from colleagues and support from group meetings. The first three most available types of support in the questionnaire were also commented on in the same order in the interviews and therefore confirmed the questionnaire analysis findings. In professional development for online education, the importance of training and support is supported by earlier research studies such as Arsht (2011) and Haggerty (2015).

Following the initial training to prepare instructors to teach via distance, support becomes an important matter. Its availability is also as crucial as initial training. Stickler and Hampel (2007) emphasize that the training prior to online teaching can only offer a limited amount of support at basic level.

> "… becoming an online language tutor is an ongoing process. Continued peer support can help in this task... As the number of tutors teaching online increases, it becomes

> easier to join an online community of practitioners or to find a mentor to help with technical as well as pedagogical problems. (p. 83)

It became evident in their project that support from colleagues can turn into a CoI support group as they gain more experience and develop solutions to their problems. It would be interesting to see if a similar peer-support mechanism can be developed in these Turkish universities. Face-to-face meetings or using an online platform for such peer-support can help share expertise between more experienced and novice instructors in distance education. Other stakeholders such as ELT researchers from Faculty of Education or staff from Distance Education Centre can also join such support groups.

Comments by directors and instructors in the interviews differed on the effectiveness of the support being offered. Directors claimed support was sufficient whereas instructors' comments showed dissatisfaction. Support was frequently in the form of support from colleagues or technical support from an admin at distance education centre when there was a major problem with the lesson. There was no comment made to suggest that support for continuous professional development or quality improvement existed.

Bishop & White's (2007) research findings quoted earlier in the literature review section help critically view the comments of the directors in the current research study. Pedagogy is not a part of the training as it is understood from the directors' comments. Moreover, instructor interviews also support this conclusion as merely technical training was provided in most cases. Second, training sessions were run as one-off occasions for the duration of one to two hours without practice by the participants. Lack of adequate and continuous support caused some negative attitudes in the online English instructors which became apparent in their interview comments.

The majority of participants perceived themselves to be medium-level users. In terms of gender differences males scored higher than females however this was not a statistically significant difference. Similarly, none of the other demographic groups showed a significant difference. The interview data collected from instructors with a minimum of one semester's experience of teaching online showed that a vast majority felt confident in using technology to teach online.

The training and support provided contributed positively in most of the cases to the perceived confidence in using technology to teach online. In the minority cases where participants expressed their limited confidence the reasons were attitude towards technology in general and preference for face-to-face teaching.

The most frequent forms of personal computer use were Search tools, News and Social media such as Facebook twitter etc. The most frequent items for professional computer use were Email to students or colleagues and Word processor. The results of two correlation tests showed that there was a small positive correlation between perceived ICT level-News and perceived ICT level-Entertainment/Games. Moreover, the use of audio and video sources for professional reasons also showed a positive correlation with perceived ICT competence.

The interview data confirmed the questionnaire results. In the interview comments, it was heard that participants felt confident in using technology in general. Some felt confident due to their previous experience with technology whereas others developed this during the teaching process. Comments were made to the effect that there was not extensive training or support facilities to prepare instructors to teach English via distance. Some comments were even about hypothetical support which would positively contribute to confidence. Even when training or support was minimal, this contributed positively to the confidence of the instructors to teach online.

Arsht's (2001) findings that the use of video sources to increase student-tutor interaction are in line with the research findings from this particular study. Use of audio/video resources for professional reasons showed a positive correlation with ICT level perception. Training on use of various types of communication tools can both help resolve the commonly identified challenge of interaction as well as increase perception of ICT competence in the distance English instructors.

Computer use for professional purposes can be supported and encouraged in order to improve interaction between teachers and learners. Even small training events and workshops were helpful as was commented on by the instructors. Therefore short, specific and continuous training sessions should be run to improve use of interactive tools and develop an online pedagogy. In order to improve ICT competence there can be training on using specific online tools. In the questionnaire News, Games and Audio/Video Sources items showed a positive correlation with ICT scores. Training on how to use these particular tools in online teaching can prove to benefit interaction as well as boost perceived ICT competence.

Research question 3 summary of findings and discussion.

- How are the elements of training determined?

These questions were asked to the directors and their responses represented their perception of the process. None of the directors had any involvement in the decision to move to online education. In the case of two directors there was no involvement with the planning of the training to teach online whereas the other two were very involved and organised it. In the first situation (Director 2), there was a management meeting and what to include in the training were decided with a committee of distance education staff. The content was mainly technical. This training was delivered to instructors teaching common courses including

Turkish Language and History of Turkish Revolution as well as English Language. In University 3 the training comprised of a single session PowerPoint presentation by Director 4. There was no consultation with the teachers who would teach online and their ideas were not included in the planning stage. This practice is contrary to the previous research literature as it is stated that teacher autonomy and motivation are boosted when they are involved in planning of teacher training for online teaching such as Chu (2013) and Adnan et al. (2017).

Training needs were commented on by the directors and showed some polarity. Some ignored pedagogical needs and made comments on how a brief technical training session would be sufficient. Their previous education and training as English teachers was the reason behind this assumption. On the other end of the spectrum were the views of another director to the effect that interaction with students was a key to keep them motivated. The skills identified by this participant, Director 2, were integrating new technology, keeping students interested, effective use of the desktop (probably the shared screen in LMS), use of audio visual technology along with instant messaging features and encouraging participation. Both of these directors were also organisers of training in their own universities. Although Director 4 talked about many pedagogical and technical skills, there was no comment to suggest that these were taught in the training session organised at his university. It was rather discussed in the interview that this participant had research interests in pedagogical aspects of teaching online. Further quality can be achieved by improving design of tasks, the materials used and the teaching approach. Materials design can be supported by educational designers however the actual teaching quality can only increase with online teaching competences.

Moreover, Walters et al. (2017, p. 16) suggest “Professional development planning that is based on the expressed needs of faculty rather than what faculty developers determine they should know may be more effective in meeting the needs of advanced faculty”. It is

important to understand “one size fits all” managerial approach may not produce desired learning outcomes in the professional development activities, training and support for online teaching.

In the interviews, there were two recommendations on how training could be improved. One of these recommendations was to give online learning experience to instructors who were to teach online. This was expected to bring a better understanding of the learner psychology and create empathy. The second recommendation was about the gradual nature of learning and suggested having continuous training sessions to improve quality of teaching and resolve issues instructors may have. Both of these recommendations came from directors and did not originate from feedback by instructors. However, previous comments by instructors on learner-teacher interaction and the questionnaire data all suggest that having online learner experience contributes positively to the perceived value of distance education. The first recommendation is confirmed by previous research findings by Adnan et al. (2017), Chang, Shen and Liu (2014), and Holmes et al. (2010) that teachers who attend professional development activities online have a more positive attitude towards teaching online and a better understanding of the student experience.

The second recommendation on gradual building of instructor skills for online teaching is also mentioned in some previous research. Westberry, McNaughton, Billot and Gaeta (2014) argue that “for any technological initiative to result in positive outcomes, teachers need a clearly communicated plan that provides scaffolding through the transitional stages” (p. 101). Similary Adnan et al. (2017) state the importantce of continuous training and support: “high quality online teaching and learning must be supported through systematic, wellorganized, proper faculty development initiatives” (p. 23).

Based on these two recommendations from the interviews it can be concluded that for future online teachers of English providing online learner experience and making arrangements for continuous support for professional development are two important measures managers can take to increase a more positive attitude towards online education and quality of online teaching.

Conclusion

One of the objectives of this study was to explore the perception of ELT teachers at selected Turkish universities on distance English language learning and teaching. In the light of the qualitative data from the interviews and the quantitative data from the questionnaire it is possible to conclude that there was a slightly positive attitude towards distance education. The source of this perception was analysed and it was found that there was a significant difference between those who had online learner experience and those who did not. Moreover, more challenges than rewards were mentioned by the distance ELT instructors with a minimum of one semester experience. Therefore, teaching via distance did not contribute positively to attitudes towards teaching online. The previous research literature by Holmes et al. (2010) and Arsht (2011) also confirmed these findings.

A second objective was to identify support/training elements perceived to be important by the instructors. Current research study findings showed that there was a perceived domination of technical aspects over pedagogical issues and assessment. However, only technical aspects were provided in the training sessions in a basic and often unsatisfactory manner as was reported by the instructors. Interestingly, directors had a different perspective and claimed training was efficient despite lack of evaluation and feedback by the participants. Technical support, support from colleagues and group meetings were ranked the highest available types of support both in the questionnaire and the

interviews. The relationship between perceived ICT competence and computer use was also explored in this study. There was a positive correlation between perceived ICT competence level and News, Entertainment/Games. and Audio/video sources. According to questionnaire results supported by findings from a study by Arsht (2011), use of these tools increase ICT competence perception.

A final objective was to explore the planning and decision-making processes in the training programmes. It was evident from interview data that none of the directors or instructors had any input in the decision to move online. According to Chu's (2013) findings, lack of involvement in the decision process may account for some of the negative attitudes towards distance education. With regard to the actual training for distance education, the instructors did not have any involvement nor did two of the directors (a Division coordinator and a Head of Foreign Languages School). The other two were very involved in organisation and running of the training. Their trainings were planned without needs analysis and included technical procedures related to using the LMS. There was no evaluation of the training from these sessions. Lack of involvement in professional development activities related to distance teaching was a major weakness as identified by earlier research on this issue (Chu, 2013; Holmes et al., 2010; Stickler & Hampel, 2007; Westberry et al., 2014).

In summary, in this particular study the distance education perceptions of instructors working at three different Turkish universities were measured and the relation to their past distance education experiences were shown. Their perceptions on importance of different training elements and support types were also part of the study. Moreover, distance education teacher training practices at these universities were explored using a mixed-methods approach. Recommendations for future training and future research are discussed under the Recommendations section.

Recommendations for Future Training

Participant involvement in planning and evaluation of training sessions. In the planning stage of any future training for teaching English via distance education it is important to include specialists of relevant fields in the planning of the training. Stakeholders including distance education centre staff, ELT instructors and ELT researchers (with teacher training experience) can come together and decide on the training elements. Teachers, especially those who have experience with online ELT, should be allowed to feedback their views on training needs (Adnan et al., 2017; Chu, 2013; Walters et al. 2017). Relevant literature and previous projects on online teacher training can be included to make informed decisions on how these can be adapted in order to develop a relevant local framework. As managerial approach is key to continuous training and support, it may be useful to involve senior members of the university management.

For continuous improvement of the training and support activities evaluation of these by the participants can be helpful. An evaluation questionnaire administered shortly after the training can help collect invaluable insights and perspectives on the training. Moreover, it would be useful to motivate participants to implement learning outcomes into their teaching.

Providing information about pedagogy in distance education. Although questionnaire data did not yield results favouring training on pedagogical elements, the interview data from ELT teachers working in distance education did. Interaction was identified as one of the important topics in the coding. Lack of interaction was identified as a challenge and training on teacher-learner interaction was identified as necessary. These points can be addressed by including two theories in future training programmes. The first is the three types of interaction defined by Moore (1989), which was presented and discussed in the previous sections. The second one is the CoI model presented by Garrison and Anderson

(2003). These can be used as pedagogical guidance in the future training sessions. The three types of interaction between learners, teachers and content can be a very useful means to understand the dynamic and interactive nature of distance learning. Different parties can increase their awareness and knowledge of these and plan how to integrate this into their course design, materials design, teaching and learning. As a form of support different from group training sessions, it may be useful to set up a CoI using an online platform. This may enable participants to develop tools that people can contribute and share their experiences. Members in such a CoI can include online teachers and other stakeholders. The practice of CoI for professional development can act as a model to be later practiced in participants' own teaching. As Walters et al. suggest, "Faculty learning communities might focus on higher-order learning, incorporating reflective and integrated learning activities, and encouraging collaboration between students in online classes" (p. 16).

Online learner experience. This study found that online learner experience is helpful for instructors and this finding was supported by previous research on teacher training for online teaching. Online learning experience helps discover the online environment, develop an understanding of the online learning process, build empathy with the students, experiment with the tools, have own perspective on course expectations and develop a more positive attitude towards distance education. Following the recommendations of a director in this study this kind of introductory sessions may also be given to students in order to orientate them to the environment and decrease level of anxiety in the first sessions.

Online tools. In the questionnaire News, Games and Audio/Video Sources items showed a positive correlation with ICT scores. Training on how to use these particular tools in online teaching can prove to benefit interaction as well as boost perceived ICT competence. Using the online platform and integrating different tools into it can increase ICT

competence levels of the teachers as well as value of distance education in their perception. A variety of online tools such as forums, discussion boards, wikis, manuals, how-to videos can be demonstrated during the training. Moreover, assessment techniques such as quizzes, tests, essays and assignments for online environment should be demonstrated. Use of these as learning tools as well as assessment tools can be encouraged to increase interactivity of the lessons and attendance rates. Limited interaction and low attendance were identified as challenges in teaching English via distance.

Recommendations for Future Research

This research study adopted a mixed methods research methodology. It consisted of quantitative and qualitative data tools. Data was collected from the participants after the training took place. Some participants had taken part in the training and some had not. There was a comparison between those who had experience in distance education as a learner, as a teacher, both or none. For future research such data can be collected in a pre-post test design in order to measure effectiveness of training. The quantitative results can be supported by thick description through interviews.

Questions in the questionnaire and interviews can be developed further to include specific tools used in online teaching to find out how confident participants feel confident in using them in their teaching. Moreover, interaction which was identified as a major challenge can be presented in sub-categories and enquired through questions on perceived importance of each sub-category. Another recommendation is to include elements of CoI theory in the questionnaire and the interview guide. These would enable future researchers to identify how much CoI items exist in actual practice.

Another recommendation relates to the number of participants. The reliability and generalizability of the research findings will increase with a larger sample size. In this particular study there were some difficulties to conduct interviews with directors. Directors with different roles were not equally represented. One director was Head of Foreign Languages School, two were coordinators in Foreign Language School of their universities and one was Head of Distance Education Centre. Comments of each director was a personal account of the research topic. Where possible, it is recommended to include equal number of directors with comparable roles for future research studies.

Similarly, including more universities in a future research study will improve the generalizability of the research findings. This will enable future researchers to see any differences due to a particular context. On the other hand, similarities among universities would mean such findings are more generalizable. In this particular study, contact was made with more universities however positive responses were received only from the three universities which participated in this study. Ways of improving success in research contact should be sought.

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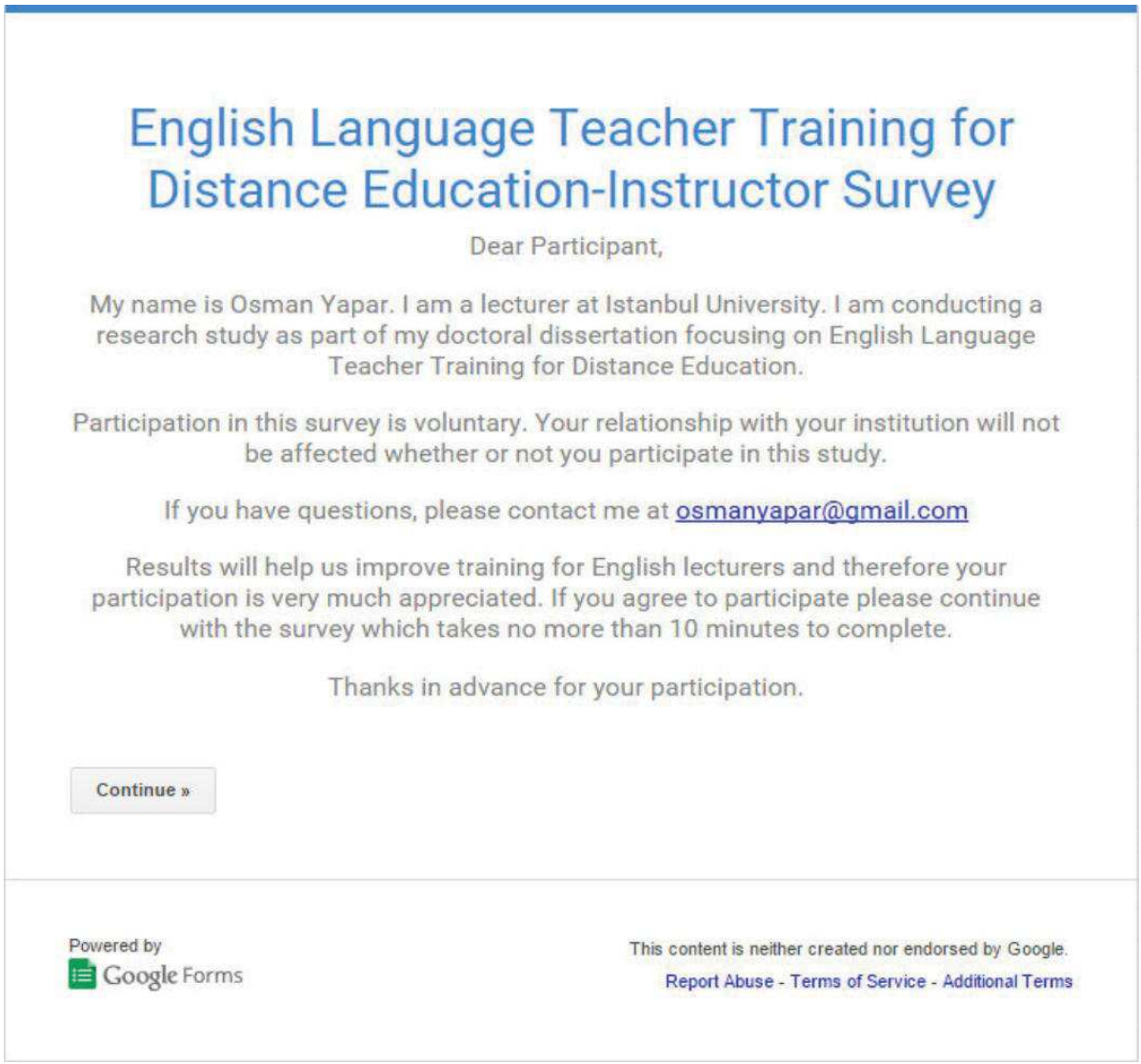
Appendices

Appendix A: Pilot Questionnaire



English Language Teacher Training for Distance Education-Instructor Survey

Dear Participant,

My name is Osman Yapar. I am a lecturer at Istanbul University. I am conducting a research study as part of my doctoral dissertation focusing on English Language Teacher Training for Distance Education.

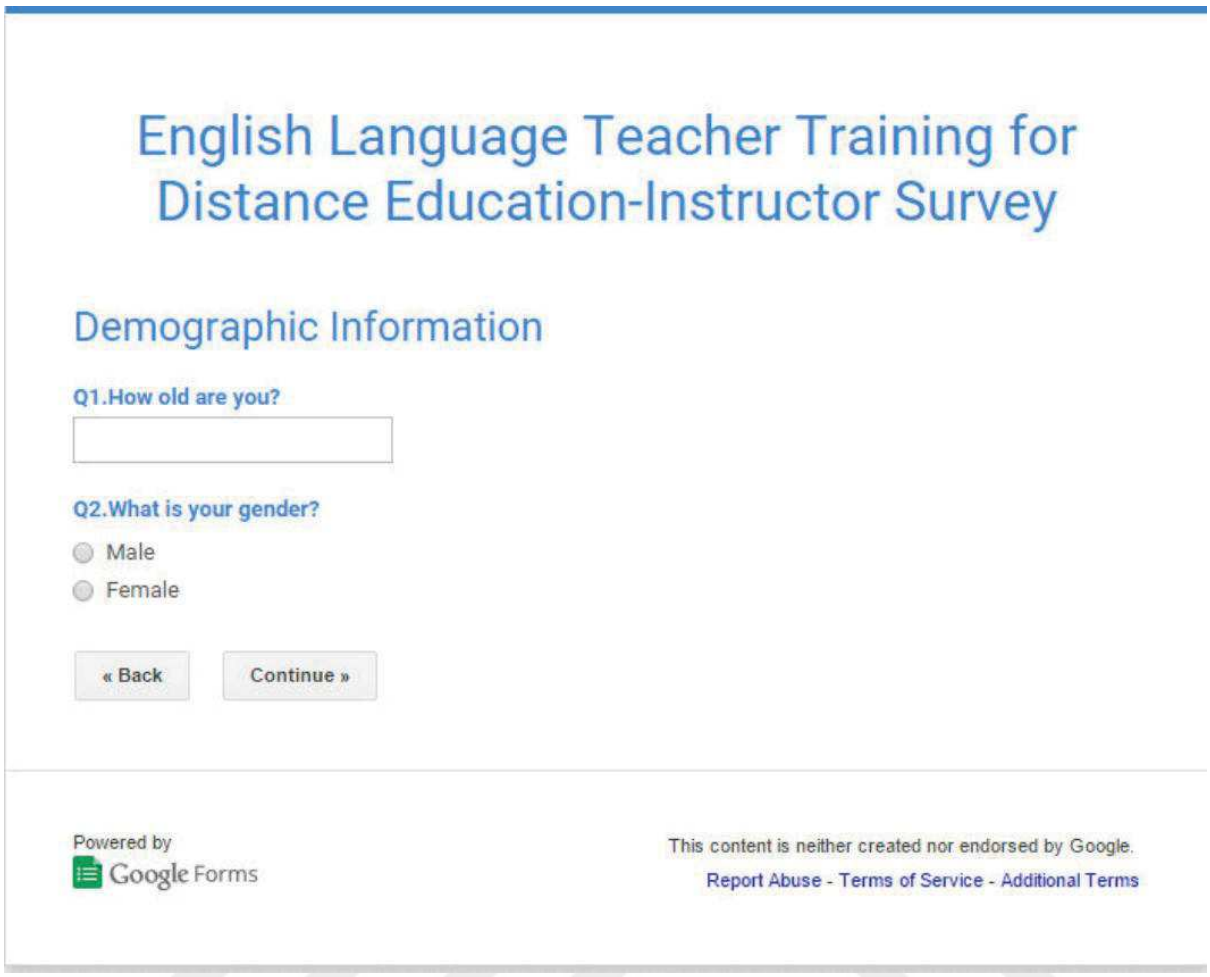
Participation in this survey is voluntary. Your relationship with your institution will not be affected whether or not you participate in this study.

If you have questions, please contact me at osmanyapar@gmail.com

Results will help us improve training for English lecturers and therefore your participation is very much appreciated. If you agree to participate please continue with the survey which takes no more than 10 minutes to complete.

Thanks in advance for your participation.

Continue »



English Language Teacher Training for Distance Education-Instructor Survey

Demographic Information

Q1.How old are you?

Q2.What is your gender?

- Male
- Female

« Back Continue »

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English Language Teacher Training for Distance Education-Instructor Survey

Qualifications and Teaching Experience

Q3.What are your academic qualifications (BA, MA and PhD)? Please specify department.

Q4.How long have you been teaching English (in years)?

Q5.How long have you been working at university level (in years)?

Q6.With what levels have you had English language teaching experience?

- A1 or Beginner
- A2 or elementary
- B1 or intermediate
- B2 or upper intermediate
- C1 or advanced
- C2 or mastery/ proficiency

« Back Continue »

English Language Teacher Training for Distance Education-Instructor Survey

Perceived ICT Competence

Q7.What do you think your level of Information and Communication Technology (ICT) competence is?

- Novice User
- Medium-level User
- Expert User

Q8.What are your main activities when you use a computer for personal needs?

	Everyday	2-5 times a week	Once a week	Once a month or less often
Social Networking (Facebook, Twitter etc.)				
News				
Advertisements				
Entertainment/Games				
Music/Video (Youtube, Dailymotion, Vimeo etc.)				
Search Tools (Google, Yandex etc.)				
Other				

Please specify "Other":

Q9.What are your main activities when you use a computer for professional needs?

	Everyday	2-5 times a week	Once a week	Once a month or less often
Word processor	○	○	○	○
Email to students or colleagues	○	○	○	○
Facebook or twitter to send messages to students or colleagues	○	○	○	○
picture/photo editing	○	○	○	○
audio/video sources	○	○	○	○
teaching blogs/websites for ideas or resources	○	○	○	○
Other	○	○	○	○

Please specify "Other":

« Back Continue »

English Language Teacher Training for Distance Education-Instructor Survey

Perceived Value of Distance Education

Q10.How valuable do you think distance education is (1 not valuable at all, 5 very valuable)?

- 1
- 2
- 3
- 4
- 5

Please briefly specify your reasons for this choice

Q11.Have you had any experience with distance education as a learner?

- Yes
- No

Q12.Have you had any experience with distance education as a teacher/instructor?

- Yes
- No

« Back Continue »

English Language Teacher Training for Distance Education-Instructor Survey

Training Elements

Q13.What do you think are the essential elements to be covered in faculty training for synchronous (live online) teaching? Please rate their importance (1 not important at all, 5 very important)

	1	2	3	4	5
Assessment	○	○	○	○	○
Technical aspects	○	○	○	○	○
Pedagogical issues	○	○	○	○	○
Other	○	○	○	○	○

Please specify "Other"

Q14.What do you think are the essential elements to be covered in faculty training for asynchronous (not live) teaching? Please rate their importance (1 not important at all, 5 very important)

	1	2	3	4	5
Assessment	○	○	○	○	○
Technical aspects	○	○	○	○	○
Pedagogical issues	○	○	○	○	○
Other	○	○	○	○	○

Please specify "Other"

« Back Continue »

Support/Training Availability

Q15.For online instructors how important are the following types of support/training (1 not important at all, 5 very important)?

	1	2	3	4	5
Online tutorials	○	○	○	○	○
Online faculty development courses/programs	○	○	○	○	○
Individual training/support from faculty support personnel	○	○	○	○	○
Group workshop(s) provided by the institution	○	○	○	○	○
Technical support provided by the institution	○	○	○	○	○
Pedagogical support provided by the institution	○	○	○	○	○
Assistance from colleagues	○	○	○	○	○
Other	○	○	○	○	○

Please specify "Other"

Q16.Which of the following types of support/training are available at your institution?

- ☐ Online tutorials
- ☐ Online faculty development courses/programs
- ☐ Individual training/support from faculty support personnel
- ☐ Group workshop(s) provided by the institution
- ☐ Technical support provided by the institution
- ☐ Pedagogical support provided by the institution
- ☐ Assistance from colleagues
- ☐ Other

Please specify "Other"

« Back Submit

Never submit passwords through Google Forms.

Appendix B: Main Questionnaire

Welcome!

Dear Participant,

My name is Osman Yapar. I am a lecturer at Istanbul University. I am conducting a research study as part of my doctoral dissertation focusing on **English Language Teacher Training for Distance Education**.

Participation in this survey is **voluntary**. Your relationship with your institution will not be affected whether or not you participate in this study.

If you have questions, please contact me at **osmanyapar@gmail.com**

Results will help us improve training for English lecturers and therefore your participation is very much appreciated. If you agree to participate, please continue with the survey which takes no more than 10 minutes to complete.

Thanks in advance for your participation.

Demographic Information

1. How old are you?

2. Are you male or female?

- ◯ Male
- ◯ Female

Qualifications

3. What are your academic qualifications? Please specify department.

BA	
MA	
PhD	

Teaching Experience

4. How long have you been teaching English (in years)?

5. How long have you been working at university level (in years)?

6. With what levels have you had English language teaching experience? Please tick all that apply.

- [ ] A1 or Beginner
- [ ] A2 or elementary
- [ ] B1 or intermediate
- [ ] B2 or upper intermediate
- [ ] C1 or advanced
- [ ] C2 or mastery/ proficiency

Perceived ICT Competence

7. What do you think your level of Information and Communication Technology (ICT) competence is?

- ◯ Novice User
- ◯ Medium-level User
- ◯ Expert User

Personal Computer Use

8. What are your main activities when you use a computer for personal needs? Please also rate how often you use them.

	Daily	2-5 times a week	Once a week	Once a month or less
Social Networking (Facebook, Twitter etc.)	◯	◯	◯	◯
News	◯	◯	◯	◯
Advertisements	◯	◯	◯	◯
Entertainment/Games	◯	◯	◯	◯
Music/Video (Youtube, Dailymotion, Vimeo etc.)	◯	◯	◯	◯
Search Tools (Google, Yandex etc.)	◯	◯	◯	◯
Other (Please Specify)	◯	◯	◯	◯

Other

Professional Computer Use

9. What are your main activities when you use a computer for professional needs? Please also rate how often you use them.

	Daily	2-5 times a week	Once a week	Once a month or less
Word processor	◯	◯	◯	◯
Email to students or colleagues	◯	◯	◯	◯
Facebook or twitter to send messages to students or colleagues	◯	◯	◯	◯
Picture/photo editing	◯	◯	◯	◯
Audio/video sources	◯	◯	◯	◯
Teaching blogs/websites for ideas or resources	◯	◯	◯	◯
Other (please specify)	◯	◯	◯	◯

Other

Perceived Value of Distance Education

10. How valuable do you think distance education is (1 not valuable at all, 5 very valuable)?

◯ 1
◯ 2
◯ 3
◯ 4
◯ 5

Please briefly specify your reasons for choice.

11. Have you had any experience with distance education as a learner?

- ◯ Yes
- ◯ No

If yes, please specify context.

12. Have you had any experience with distance education as a teacher?

- ◯ Yes
- ◯ No

If yes, please specify context.

Training Elements

13. What do you think are the essential elements to be covered in faculty training for distance teaching? Please also rate their importance (1 not important at all, 5 very important).

	1	2	3	4	5
Assessment	◯	◯	◯	◯	◯
Technical aspects	◯	◯	◯	◯	◯
Pedagogical issues	◯	◯	◯	◯	◯
Other (please specify)	◯	◯	◯	◯	◯

Other (please specify)

Support/Training Availability

14. For online instructors how important are the following types of support/training (1 not important at all, 5 very important)?

	1	2	3	4	5
Online tutorials	◯	◯	◯	◯	◯
Online faculty development courses/programs	◯	◯	◯	◯	◯
Individual training/support from faculty support personnel	◯	◯	◯	◯	◯
Group workshop(s) provided by the institution	◯	◯	◯	◯	◯
Technical support provided by the institution	◯	◯	◯	◯	◯
Pedagogical support provided by the institution	◯	◯	◯	◯	◯
Assistance from colleagues	◯	◯	◯	◯	◯
Other	◯	◯	◯	◯	◯

Other (please specify)

15. Which of these are available at your institution? Please tick as approriate.

- ◯ Online tutorials
- ◯ Online faculty development courses/programs
- ◯ Individual training/support from faculty support personnel
- ◯ Group workshop(s) provided by the institution
- ◯ Technical support provided by the institution
- ◯ Pedagogical support provided by the institution
- ◯ Assistance from colleagues
- ◯ None of the above
- ◯ Other (Please Specify)

Appendix C: Interview Guides

Interview Guide for Directors

Demographics
Please state your name, position and years of experience in this position

About English via distance course
Can you briefly describe how the English via distance course has started?

Is there anything that makes this course different from face to face counterparts?

About in-service training
What kind of specific training needs do distance English language teaching faculty members have?

Who decides on the content of the training? How is this decision made?

Is there any evaluation of the course? If yes, how? Do you find it efficient? How can it be improved?

Support
What kind of support is available to online instructors?

According to your knowledge do instructors find this support efficient?

How are the faculty support activities and materials selected? What kind of criteria do you use for the implementation of faculty support activities?

Special for Director of Distance Education Centre
How different is it to support English language teachers from the ones in other disciplines?

Interview Guide for Instructors

Demographics

Please state your name, position and years of experience in this position

About English via distance course

Can you briefly describe how the English via distance course has started?

What are the challenges of teaching English via distance?

What are the rewards of teaching English via distance?

When you compare teaching via distance to teaching face to face which of the four main skills do you find more efficient in either mode? Why?

In your training was there an element on teacher-learner interaction in distance environments?

Do you think such an element is necessary?

Perceived confidence

How confident do you feel in using technology for distance education?

How do training and support activities affect your confidence?

Appendix D: Research Permission Requests

Tarih: 01.10.2014

Çanakkale Onsekiz Mart Üniversitesi Yabancı Diller Yüksekokulu Müdürlüğüne

Konu: Araştırma İzni Başvurusu

Ben Osman Erdem Yapar İstanbul Üniversitesi'nde İngilizce okutmanı olarak çalışmaktayım. Aynı zamanda üniversitenizde İngiliz Dili Eğitimi Bilim Dalı'nda doktora yapmaktayım.

Doktora tez konusu olarak **English Language Teacher Training for Distance Education (Uzaktan Eğitim için İngilizce Öğretmeni Eğitimi)** belirlemiş bulunmaktayım.

Çalışmamın veri toplama kısmını yürütebilmek için Yabancı Diller Yüksek Okulu Müdürlüğü'ne bağlı olarak çalışan İngilizce okutmanlarına anket ve mülakat uygulamak için izin talep etmekteyim.

Anket ve mülakat çalışmalarına katılım tamamen gönüllülük esasına bağlı olup katılımcıların vazgeçmesi durumunda tamamlamak için herhangi bir baskı uygulanmayacaktır.

Konuyla ilgili soru ve cevabınızı osmanyapar@gmail.com adresine gönderebilirsiniz.

Saygılarımla,

Osman Erdem Yapar

Doktora Araştırmacısı

Tarih: 05/05/2015

İstanbul Üniversitesi Yabancı Diller Bölüm Başkanlığına

"English Language Teacher Training for Distance Education" konulu bir doktora tez araştırması yürütmekteyim. Hazırlamış olduğum anketi başkanlığınıza bağlı olarak çalışan İngilizce okutmanlarına uygulamak için izin verilmesini arz ederim.

Ek1 : Anket Formu

Osman Yapar

İngilizce Okutmanı

Açık ve Uzaktan Eğitim Fakültesi

Istanbul Üniversitesi

YK'ya

06/05/2015

Appendix E: Research Permission Decisions

Tarih ve Sayı: 12/05/2015-142407

BE844K9E1

T.C.
İSTANBUL ÜNİVERSİTESİ
Yabancı Diller Bölümü Başkanlığı

Sayı :52671820-929-
Konu :Okutman Osman YAPAR

AÇIK VE UZAKTAN EĞİTİM FAKÜLTESİ DEKANLIĞINA

Fakülteniz İngilizce Okutmanı Osman YAPAR'ın Başkanlığımıza vermiş olduğu dilekçede "English Language Teacher Training for Distance Education" konulu tez araştırması kapsamında ekte yer alan anket çalışmasını Bölümümüz İngilizce Okutmanlarına uygulama isteği 7 Mayıs 2015 tarih 211 sayılı Yönetim Kurulunda görüşülmüş ve uygun olduğuna karar verilmiştir. Yönetim Kurulu Kararı ekte sunulmuştur.

Bilgilerinize arz ederim.

e-İmzalı
Nedim TAŞ
Bölüm Başkanı V.

Ekler :
1- Yönetim Kurulu Kararı
2- Dilekçe
3- Anket

07/05/2015 B.İşl. : Ö.KUMRAL
07/05/2015 Böl. Sekr. : Ş.YÜKSEL
12/05/2015 Böl.Bşk.Yrd. : Ö.GÜLDEN
12/05/2015 Böl.Bşk.Yrd. : N.TAŞ

Ayrıntılı bilgi için irtibat : Ömer KUMRAL Dahili : 26114
İstanbul Üniversitesi Yabancı Diller Bölümü Kirazlı Mescit Sk. No:31 PK: 34116
Süleymaniye/Fatih/İstanbul/Türkiye
Tel : 0212 440 00 00 - 26114 Fax : 0212 514 03 07
e-posta : lang@istanbul.edu.tr Elektronik Ağ : yabancidiller.istanbul.edu.tr

T.C.
İSTANBUL ÜNİVERSİTESİ REKTÖRLÜĞÜ
Yabancı Diller Bölüm Başkanlığı
Yönetim Kurulu Kararı

Toplantı Tarihi: 7 Mayıs 2015
Toplantı Sayısı: 211

Madde 1: AUZEF İngilizce okutmanı Osman YAPAR'ın 05.05.2015 tarihli dilekçesi görüşüldü ve anket çalışması yapmasının uygun olduğuna,

oybirliği ile karar verildi.

ASLININ AYNIDIR.

Şevket YÜKSEL

Yönetim Kurulu Raportörü

T.C.
ÇANAKKALE ONSEKİZ MART ÜNİVERSİTESİ
YABANCI DİLLER YÜKSEKOKULU MÜDÜRLÜĞÜ

Sayı : 12164519-780-03/922
Konu: Anket Çalışması

ÇANAKKALE
16.10.2014

Sn. Öğretim Elemanı

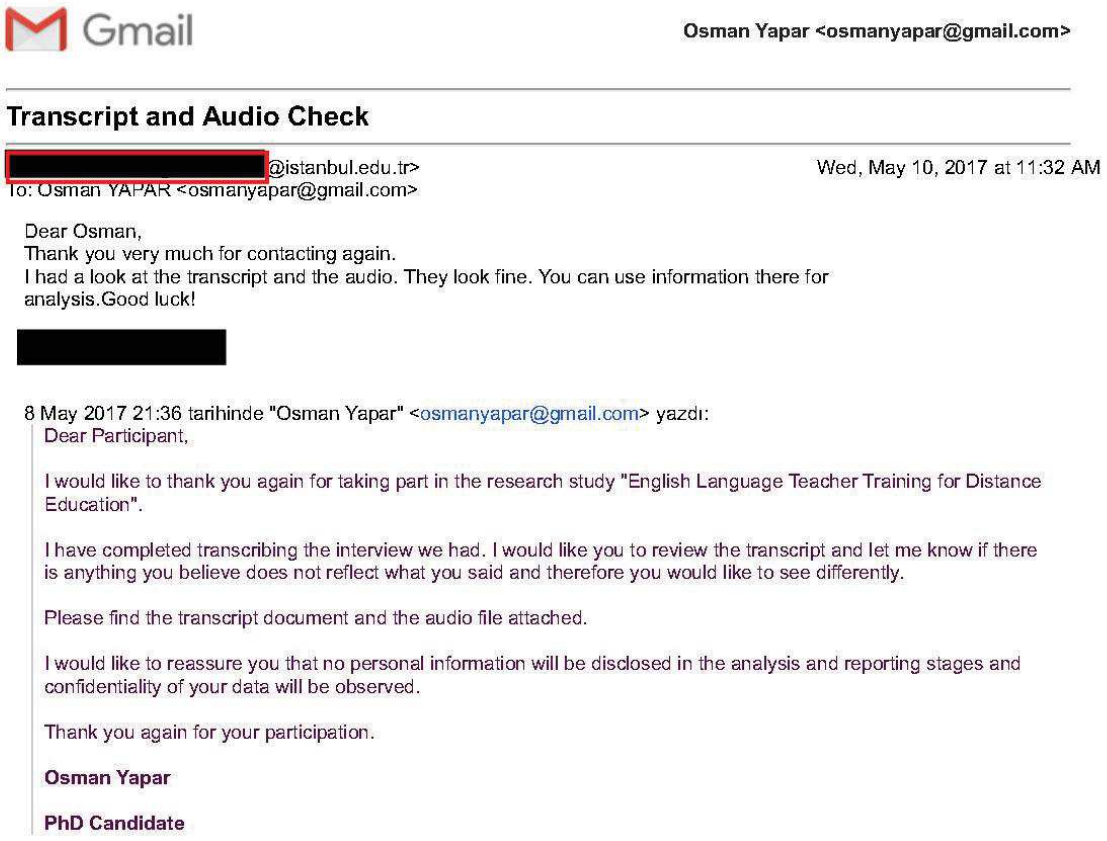
Üniversitemiz Eğitim Bilimleri Enstitüsü bünyesinde doktora tez çalışması olarak Uzaktan Eğitim ile ilgili sorunları irdeleyen Öğretim Görevlisi Osman YAPAR tarafından hazırlanmış olan anketin doldurulması Üniversitemizdeki eğitim öğretim faaliyetlerinin kalitesinin artmasına katkı sağlayacaktır. Ekteki anketin doldurularak bölüm sekreterliğine teslim edilmesi hususunda;

Bilgilerinizi ve gereğini rica ederim.

Yrd. Doç. Dr. Hasan BAYRAKTAR
Müdür

Terzioğlu Yerleşkesi 17100 ÇANAKKALE Tel:0(286)2180429 Faks:0(286)2183409

Appendix F: Transcript Check Sample – Director



Gmail

Osman Yapar <osmanyapar@gmail.com>

Transcript and Audio Check

[redacted]@istanbul.edu.tr> Wed, May 10, 2017 at 11:32 AM
To: Osman YAPAR <osmanyapar@gmail.com>

Dear Osman,
Thank you very much for contacting again.
I had a look at the transcript and the audio. They look fine. You can use information there for analysis.Good luck!

[redacted]

8 May 2017 21:36 tarihinde "Osman Yapar" <osmanyapar@gmail.com> yazdı:

> Dear Participant,
>
> I would like to thank you again for taking part in the research study "English Language Teacher Training for Distance Education".
>
> I have completed transcribing the interview we had. I would like you to review the transcript and let me know if there is anything you believe does not reflect what you said and therefore you would like to see differently.
>
> Please find the transcript document and the audio file attached.
>
> I would like to reassure you that no personal information will be disclosed in the analysis and reporting stages and confidentiality of your data will be observed.
>
> Thank you again for your participation.
>
> **Osman Yapar**
>
> **PhD Candidate**

Appendix G: Transcript Check Sample – Instructor

Osman Yapar <osmanyapar@gmail.com>

Transcript and audio file check

[redacted]@karabuk.edu.tr> Fri, May 12, 2017 at 1:22 PM
To: Osman Yapar <osmanyapar@gmail.com>

Hi Osman,
I am happy to hear you finished transcript. Listening to interview was interesting. After you finish your phd, let me know what the results are.
Thanks.
--

On 08/05/2017, 21:35 Osman Yapar <osmanyapar@gmail.com> wrote:

> Dear Participant,
>
> I would like to thank you again for taking part in the research study "English Language Teacher Training for Distance Education".
>
> I have completed transcribing the interview we had. I would like you to review the transcript and let me know if there is anything you believe does not reflect what you said and therefore you would like to see differently.
>
> Please find the transcript document and the audio file attached.
>
> I would like to reassure you that no personal information will be disclosed in the analysis and reporting stages and confidentiality of your data will be observed.
>
> Thank you again for your participation.
>
> **Osman Yapar**
> **PhD Candidate**

Appendix H: Reliability Tests

Scale: computer use

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.726	.720	12

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q8.(Facebook, Twitter etc.)]	31.56	28.463	.291	.221	.717
Q8. [News]	31.48	28.627	.347	.176	.711
Q8.[Advertisements]	32.86	27.194	.326	.271	.714
Q8.[Entertainment/Games]	33.08	27.645	.265	.176	.723
Q8.[Music/Video]	31.81	28.462	.315	.174	.714
Q8.[Search Tools]	31.21	31.026	.181	.123	.726
Q9.[Word processor]	31.86	28.890	.256	.207	.721
Q9.[Email to students or colleagues]	31.84	26.885	.452	.388	.696
Q9.[Facebook or twitter to send messages to students or colleagues]	32.42	24.354	.503	.429	.685
Q9.[picture/photo editing]	33.12	25.799	.464	.424	.693
Q9.[audio/video sources]	32.42	26.102	.480	.416	.691
Q9.[teaching blogs/websites for ideas or resources]	32.52	26.770	.406	.296	.702

Inter-Item Correlation Matrix											
	Q8.(Facebook, Twitter etc.)]	Q8. [News]	Q8.[Advertisements]	Q8.[Entertainment/Games]	Q8.[Music/Video]	Q8.[Search Tools]	Q9.[Word processor]	Q9.[Email to students or colleagues]	Q9.[Facebook or twitter to send messages to students or colleagues]	Q9.[picture/photo editing]	Q9.[audio/video sources]
Q8. [News]	.178										
Q8.[Advertisements]	.130	.196									
Q8.[Entertainment/Games]	.095	.120	.320								
Q8.[Music/Video]	.163	.052	.167	.234							
Q8.[Search Tools]	.121	.110	.238	.174	.100						
Q9.[Word processor]	-.016	.174	.060	.021	.171	-.001					
Q9.[Email to students or colleagues]	.107	.292	.190	.135	.118	.183	.377				
Q9.[Facebook or twitter to send messages to students or colleagues]	.413	.260	.129	.059	.121	.060	.179	.342			
Q9.[picture/photo editing]	.120	.153	.325	.190	.184	-.046	.160	.086	.428		
Q9.[audio/video sources]	.156	.108	.056	.048	.297	.053	.208	.291	.425	.462	
Q9.[teaching blogs/websites for ideas or resources]	.120	.270	.073	.156	.130	.047	.091	.390	.263	.249	.401

Scale: importance of training elements and methods

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.869	.871	10

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q13.[Assessment]	36.80	37.914	.570	.459	.858
Q13.[Technical aspects]	36.44	39.338	.554	.539	.859
Q13.[Pedagogical issues]	36.71	38.673	.518	.496	.863
Q14.[Online tutorials]	36.63	38.111	.596	.493	.856
Q14.[Online faculty development courses/programs]	36.68	37.612	.698	.587	.848
Q14.[Individual training/support from faculty support personnel]	36.56	38.070	.660	.506	.851
Q14.[Group workshop(s) provided by the institution]	36.81	37.605	.593	.448	.856
Q14.[Technical support provided by the institution]	36.37	37.986	.663	.540	.851
Q14.[Pedagogical support provided by the institution]	36.79	37.776	.615	.526	.855
Q14.[Assistance from colleagues]	36.91	40.028	.422	.228	.870

Inter-Item Correlation Matrix									
	Q13.[Assessment]	Q13.[Technical aspects]	Q13.[Pedagogical issues]	Q14.[Online tutorials]	Q14.[Online faculty development courses/programs]	Q14.[Individual training/ support from faculty support personnel]	Q14.[Group workshop(s) provided by the institution]	Q14.[Technical support provided by the institution]	Q14.[Pedagogical support provided by the institution]
Q13.[Technical aspects]	.555								
Q13.[Pedagogical issues]	.534	.390							
Q14.[Online tutorials]	.357	.419	.204						
Q14.[Online faculty development courses/programs]	.406	.386	.336	.651					
Q14.[Individual training/support from faculty support personnel]	.327	.459	.307	.529	.588				
Q14.[Group workshop(s) provided by the institution]	.320	.251	.259	.454	.545	.539			
Q14.[Technical support provided by the institution]	.423	.585	.271	.475	.531	.553	.477		
Q14.[Pedagogical support provided by the institution]	.368	.211	.549	.355	.524	.442	.511	.420	
Q14.[Assistance from colleagues]	.241	.193	.356	.265	.275	.308	.310	.338	.370

Appendix I: Tests of Normality

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Q10.ValDistEdu	.172	113	.000	.911	113	.000

a. Lilliefors Significance Correction

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Q13.[Assessment]	.234	113	.000	.839	113	.000
Q13.[Technical aspects]	.333	113	.000	.741	113	.000
Q13.[Pedagogical issues]	.243	113	.000	.816	113	.000

a. Lilliefors Significance Correction

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Q14.[Online tutorials]	.260	113	.000	.800	113	.000
Q14.[Online faculty development courses /programs]	.270	113	.000	.812	113	.000
Q14.[Individual training/support from faculty support personnel]	.285	113	.000	.795	113	.000
Q14.[Group workshop(s) provided by the institution]	.222	113	.000	.840	113	.000
Q14.[Technical support provided by the institution]	.357	113	.000	.698	113	.000
Q14.[Pedagogical support provided by the institution]	.243	113	.000	.836	113	.000
Q14.[Assistance from colleagues]	.228	113	.000	.866	113	.000

a. Lilliefors Significance Correction

Appendix J: Interrater Agreement for Interview Data

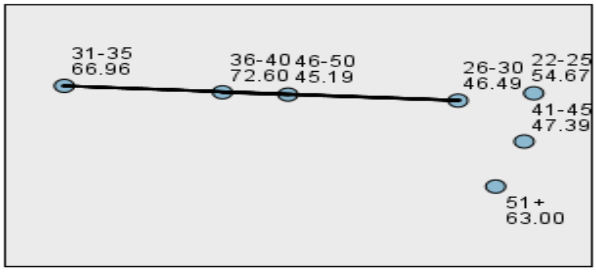
Node	Source	Kappa	Agreement (%)
Confidence in using technology to teach online	Director 3	1	100.00
Confidence in using technology to teach online\Confident in using technology	Director 3	1	100
Confidence in using technology to teach online\Effect of support and training-positive	Director 3	1	100
Confidence in using technology to teach online\Effect of support training-neutral	Director 3	1	100
Confidence in using technology to teach online\Not confident in using technology	Director 3	1	100
Decision process for the course	Director 3	0	92.95
Decision process for the course\No idea	Director 3	1	100
Decision process for the course\Top-bottom	Director 3	0	92.95
Support matters	Director 3	0	92.57
Support matters\Efficient support	Director 3	1	100
Support matters\Lacking or insufficient support	Director 3	1	100
Support matters\Types of support	Director 3	0	92.57
Support matters\Types of support\Colleagues	Director 3	0	97.6
Support matters\Types of support\Group Meetings	Director 3	1	100
Support matters\Types of support\Technical support	Director 3	0	93.98
Teaching online	Director 3	0	93.84
Teaching online\Challenges of teaching online	Director 3	0	93.84
Teaching online\Challenges of teaching online\Attendance	Director 3	0	93.84
Teaching online\Challenges of teaching online\Classroom management	Director 3	1	100
Teaching online\Challenges of teaching online\Distractions due to computer use	Director 3	1	100
Teaching online\Challenges of teaching online\interaction	Director 3	1	100
Teaching online\Challenges of teaching online\lack of good quality materials	Director 3	1	100
Teaching online\Challenges of teaching online\managerial approach to course	Director 3	1	100
Teaching online\Challenges of teaching online\Motivation	Director 3	1	100
Teaching online\Challenges of teaching online\Technical difficulties	Director 3	1	100
Teaching online\Rewards of teaching online	Director 3	1	100
Teaching online\Rewards of teaching online\Better paid	Director 3	1	100
Teaching online\Rewards of teaching online\Convenience	Director 3	1	100
Teaching online\Rewards of teaching online\Lack of emotional pressure for students	Director 3	1	100
Teaching online\Rewards of teaching online\Personal Satisfaction	Director 3	1	100
Teaching online\Rewards of teaching online\Technical Advantages	Director 3	1	100
Teaching online\Teaching four skills online	Director 3	1	100
Teaching online\Teaching four skills online\Listening online advantageous	Director 3	1	100

Teaching online\Teaching four skills online\No skills more advantageous	Director 3	1	100
Teaching online\Teaching four skills online\Reading online advantageous	Director 3	1	100
Teaching online\Teaching four skills online\Speaking online advantageous	Director 3	1	100
Teaching online\Teaching four skills online\Writing online advantageous	Director 3	1	100
Training matters	Director 3	0	84.48
Training matters\training decisions	Director 3	0	92.98
Training matters\training decisions\Training decision process-involvement	Director 3	1	100
Training matters\training decisions\Training Decision process-no involvement	Director 3	0	92.98
Training matters\training needs	Director 3	1	100
Training matters\training needs\Training needs-pedagogical	Director 3	1	100
Training matters\training needs\Training needs-technical	Director 3	1	100
Training matters\Training on learner teacher interaction	Director 3	1	100
Training matters\Training on learner teacher interaction\Necessary	Director 3	1	100
Training matters\Training on learner teacher interaction\Not necessary	Director 3	1	100
Training matters\Training recommendations	Director 3	0	94.69
Training matters\views on training efficiency	Director 3	0	96.8
Training matters\views on training efficiency\Effective	Director 3	1	100
Training matters\views on training efficiency\Lacking or insufficient	Director 3	1	100
Training matters\views on training efficiency\No evaluation made	Director 3	0	96.8
	Total for Director 3	**0.71**	**98.13**
Confidence in using technology to teach online	instructor 02	0	94.09
Confidence in using technology to teach online\Confident in using technology	instructor 02	0	94.09
Confidence in using technology to teach online\Effect of support and training-positive	instructor 02	1	100
Confidence in using technology to teach online\Effect of support training-neutral	instructor 02	1	100
Confidence in using technology to teach online\Not confident in using technology	instructor 02	1	100
Decision process for the course	instructor 02	0	93.69
Decision process for the course\No idea	instructor 02	1	100
Decision process for the course\Top-bottom	instructor 02	0	93.69
Support matters	instructor 02	0	97.44
Support matters\Efficient support	instructor 02	1	100
Support matters\Lacking or insufficient support	instructor 02	0	97.44
Support matters\Types of support	instructor 02	1	100
Support matters\Types of support\Colleagues	instructor 02	1	100
Support matters\Types of support\Group Meetings	instructor 02	1	100
Support matters\Types of support\Technical support	instructor 02	1	100
Teaching online	instructor 02	0	76.75
Teaching online\Challenges of teaching online	instructor 02	0	93.79
Teaching online\Challenges of teaching online\Attendance	instructor 02	0	96.99

Teaching online\Challenges of teaching online\Classroom management	instructor 02	1	100
Teaching online\Challenges of teaching online\Distractions due to computer use	instructor 02	1	100
Teaching online\Challenges of teaching online\interaction	instructor 02	0	96.8
Teaching online\Challenges of teaching online\lack of good quality materials	instructor 02	1	100
Teaching online\Challenges of teaching online\managerial approach to course	instructor 02	1	100
Teaching online\Challenges of teaching online\Motivation	instructor 02	1	100
Teaching online\Challenges of teaching online\Technical difficulties	instructor 02	1	100
Teaching online\Rewards of teaching online	instructor 02	0	84
Teaching online\Rewards of teaching online\Better paid	instructor 02	0	94.21
Teaching online\Rewards of teaching online\Convenience	instructor 02	1	100
Teaching online\Rewards of teaching online\Lack of emotional pressure for students	instructor 02	1	100
Teaching online\Rewards of teaching online\Personal Satisfaction	instructor 02	0	89.79
Teaching online\Rewards of teaching online\Technical Advantages	instructor 02	1	100
Teaching online\Teaching four skills online	instructor 02	0	98.96
Teaching online\Teaching four skills online\Listening online advantageous	instructor 02	0	98.96
Teaching online\Teaching four skills online\No skills more advantageous	instructor 02	1	100
Teaching online\Teaching four skills online\Reading online advantageous	instructor 02	0	98.96
Teaching online\Teaching four skills online\Speaking online advantageous	instructor 02	1	100
Teaching online\Teaching four skills online\Writing online advantageous	instructor 02	0	98.96
Training matters	instructor 02	0	90.29
Training matters\training decisions	instructor 02	1	100
Training matters\training decisions\Training decision process-involvement	instructor 02	1	100
Training matters\training decisions\Training Decision process-no involvement	instructor 02	1	100
Training matters\training needs	instructor 02	0	97.44
Training matters\training needs\Training needs-pedagogical	instructor 02	1	100
Training matters\training needs\Training needs-technical	instructor 02	0	97.44
Training matters\Training on learner teacher interaction	instructor 02	0	92.85
Training matters\Training on learner teacher interaction\Necessary	instructor 02	0	92.85
Training matters\Training on learner teacher interaction\Not necessary	instructor 02	1	100
Training matters\Training recommendations	instructor 02	1	100
Training matters\views on training efficiency	instructor 02	0	97.44
Training matters\views on training efficiency\Effective	instructor 02	1	100
Training matters\views on training efficiency\Lacking or insufficient	instructor 02	0	97.44
Training matters\views on training efficiency\No evaluation made	instructor 02	1	100
	Total for instructor 02	**0.54**	**97.39**
	Total	**0.63**	**97.76**

Appendix K: Value of Distance Education and Age Groups Pairwise Comparisons

Pairwise Comparisons of Q1. Agegroup



Each node shows the sample average rank of Q1. Agegroup.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
46-50-26-30	1.298	12.427	.104	.917	1.000
46-50-41-45	2.201	15.409	.143	.886	1.000
46-50-22-25	9.479	14.474	.655	.513	1.000
46-50-51+	-17.812	17.126	-1.040	.298	1.000
46-50-31-35	21.769	13.016	1.672	.094	1.000
46-50-36-40	27.412	13.266	2.066	.039	.815
26-30-41-45	-.903	11.852	-.076	.939	1.000
26-30-22-25	8.181	10.608	.771	.441	1.000
26-30-51+	-16.514	14.012	-1.179	.239	1.000
26-30-31-35	-20.471	8.512	-2.405	.016	.340
26-30-36-40	-26.114	8.889	-2.938	.003	.069
41-45-22-25	7.278	13.983	.520	.603	1.000
41-45-51+	-15.611	16.713	-.934	.350	1.000
41-45-31-35	19.568	12.468	1.569	.117	1.000
41-45-36-40	25.211	12.728	1.981	.048	1.000
22-25-51+	-8.333	15.856	-.526	.599	1.000
22-25-31-35	-12.290	11.293	-1.088	.276	1.000
22-25-36-40	-17.933	11.579	-1.549	.121	1.000
51+-31-35	3.957	14.537	.272	.785	1.000
51+-36-40	9.600	14.761	.650	.515	1.000
31-35-36-40	-5.643	9.695	-.582	.561	1.000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is .05.

Appendix L: Value of Distance Education and Gender

Mann-Whitney Test

Ranks

	Q2.Gender	N	Mean Rank	Sum of Ranks
Q10.ValDistEdu	Male	56	63.38	3549.50
	Female	57	50.73	2891.50
	Total	113		

Test Statistics[a]

	Q10.ValDistEdu
Mann-Whitney U	1238.500
Wilcoxon W	2891.500
Z	-2.121
Asymp. Sig. (2-tailed)	.034

a. Grouping Variable: Q2.Gender

Q10.ValDistEdu

Q2.Gender	Mean	N	Std. Deviation
Male	3.52	56	1.095
Female	3.09	57	1.123
Total	3.30	113	1.125

Appendix M: Value of Distance Education with ELT Experience, University Experience and University Membership

Kruskal-Wallis Test

Ranks

	Q4. ELTExpGroup	N	Mean Rank
Q10.ValDistEdu	1-5	35	51.43
	6-10	26	54.04
	11-15	26	70.23
	16-20	14	55.57
	21+	12	52.67
	Total	113	

Test Statistics[a,b]

	Q10.ValDistEdu
Chi-Square	6.086
df	4
Asymp. Sig.	.193

a. Kruskal Wallis Test

b. Grouping Variable: Q4. ELTExpGroup

Kruskal-Wallis Test

Ranks

	Q5. UniÊxpGroup	N	Mean Rank
Q10.ValDistEdu	1-5	54	56.08
	6-10	27	53.61
	11-15	14	69.14
	16+	18	55.39
	Total	113	

Test Statistics[a,b]

	Q10.ValDistEdu
Chi-Square	2.453
df	3
Asymp. Sig.	.484

a. Kruskal Wallis Test

b. Grouping Variable: Q5. UniÊxpGroup

Kruskal-Wallis Test

Ranks

	Uni	N	Mean Rank
Q10.ValDistEdu	1.00	25	51.70
	2.00	63	58.38
	3.00	25	58.82
	Total	113	

Test Statistics[a,b]

	Q10.ValDistEdu
Chi-Square	.900
df	2
Asymp. Sig.	.638

a. Kruskal Wallis Test

b. Grouping Variable: Uni

Appendix N: Tests for Q10 and Q11-Q12 Groups

Ranks

	Q11Q12.LearnTeachExp	N	Mean Rank
Q10.ValDistEdu	Both	26	77.48
	OnlyLearnerExp	4	64.00
	OnlyTeachExp	45	54.19
	None	38	45.58
	Total	113	

Test Statistics[a,b]

	Q10.ValDistEdu
Chi-Square	16.323
df	3
Asymp. Sig.	.001

a. Kruskal Wallis Test

b. Grouping Variable: Q11Q12.LearnTeachExp

Each node shows the sample average rank of Q11Q12.LearnTeachExp.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
None-OnlyTeachExp	8.610	6.986	1.232	.218	1.000
None-OnlyLearnerExp	18.421	16.669	1.105	.269	1.000
None-Both	31.902	8.071	3.953	.000	.000
OnlyTeachExp-OnlyLearnerExp	9.811	16.545	.593	.553	1.000
OnlyTeachExp-Both	23.292	7.812	2.982	.003	.017
OnlyLearnerExp-Both	13.481	17.032	.792	.429	1.000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is .05.

Mann-Whitney Test

Ranks

	Q11Q12.LearnTeachExp	N	Mean Rank	Sum of Ranks
Q10.ValDistEdu	Both	26	45.40	1180.50
	OnlyTeachExp	45	30.57	1375.50
	Total	71		

Test Statistics[a]

	Q10.ValDistEdu
Mann-Whitney U	340.500
Wilcoxon W	1375.500
Z	-3.019
Asymp. Sig. (2-tailed)	.003

a. Grouping Variable: Q11Q12.LearnTeachExp

Mann-Whitney Test

Ranks

	Q11Q12.LearnTeachExp	N	Mean Rank	Sum of Ranks
Q10.ValDistEdu	Both	26	42.94	1116.50
	None	38	25.36	963.50
	Total	64		

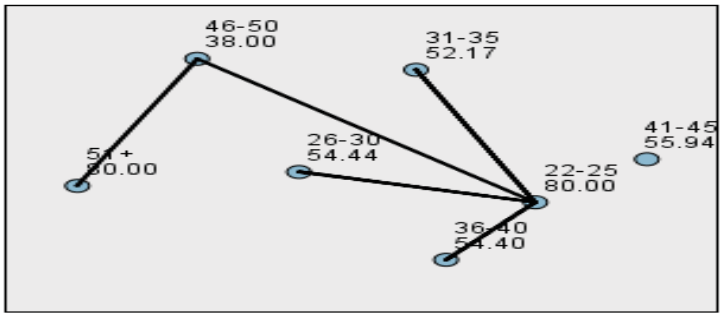
Test Statistics[a]

	Q10.ValDistEdu
Mann-Whitney U	222.500
Wilcoxon W	963.500
Z	-3.825
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Q11Q12.LearnTeachExp

Appendix O: Q13 Training Element Assessment and Age Groups

Pairwise Comparisons of Q1. Agegroup



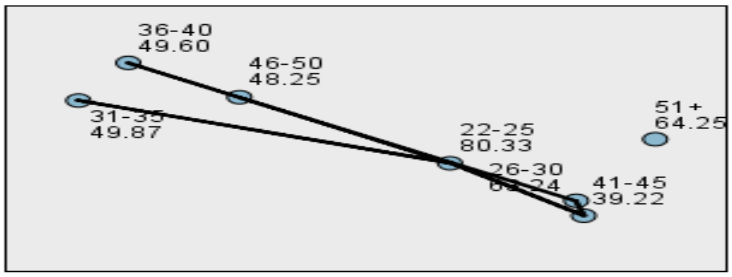
Each node shows the sample average rank of Q1. Agegroup.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
46-50-31-35	14.174	12.793	1.108	.268	1.000
46-50-36-40	16.400	13.038	1.258	.208	1.000
46-50-26-30	16.443	12.214	1.346	.178	1.000
46-50-41-45	17.944	15.144	1.185	.236	1.000
46-50-22-25	42.000	14.226	2.952	.003	.066
46-50-51+	-42.000	16.832	-2.495	.013	.264
31-35-36-40	-2.226	9.529	-.234	.815	1.000
31-35-26-30	2.269	8.366	.271	.786	1.000
31-35-41-45	-3.771	12.254	-.308	.758	1.000
31-35-22-25	27.826	11.099	2.507	.012	.256
31-35-51+	-27.826	14.287	-1.948	.051	1.000
36-40-26-30	.043	8.736	.005	.996	1.000
36-40-41-45	-1.544	12.510	-.123	.902	1.000
36-40-22-25	25.600	11.380	2.249	.024	.514
36-40-51+	-25.600	14.507	-1.765	.078	1.000
26-30-41-45	-1.502	11.648	-.129	.897	1.000
26-30-22-25	25.557	10.426	2.451	.014	.299
26-30-51+	-25.557	13.771	-1.856	.063	1.000
41-45-22-25	24.056	13.743	1.750	.080	1.000
41-45-51+	-24.056	16.426	-1.464	.143	1.000
22-25-51+	.000	15.583	.000	1.000	1.000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is .05.

Appendix P: Q13 Training Element Pedagogical Issues and Age Groups

Pairwise Comparisons of Q1. Agegroup



Each node shows the sample average rank of Q1. Agegroup.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
41-45-46-50	-9.028	15.007	-.602	.547	1.000
41-45-36-40	10.378	12.397	.837	.403	1.000
41-45-31-35	10.647	12.143	.877	.381	1.000
41-45-26-30	24.021	11.543	2.081	.037	.786
41-45-51+	-25.028	16.278	-1.538	.124	1.000
41-45-22-25	41.111	13.619	3.019	.003	.053
46-50-36-40	1.350	12.920	.104	.917	1.000
46-50-31-35	1.620	12.677	.128	.898	1.000
46-50-26-30	14.993	12.103	1.239	.215	1.000
46-50-51+	-16.000	16.680	-.959	.337	1.000
46-50-22-25	32.083	14.097	2.276	.023	.480
36-40-31-35	.270	9.443	.029	.977	1.000
36-40-26-30	13.643	8.657	1.576	.115	1.000
36-40-51+	-14.650	14.376	-1.019	.308	1.000
36-40-22-25	30.733	11.278	2.725	.006	.135
31-35-26-30	13.373	8.290	1.613	.107	1.000
31-35-51+	-14.380	14.158	-1.016	.310	1.000
31-35-22-25	30.464	10.998	2.770	.006	.118
26-30-51+	-1.007	13.647	-.074	.941	1.000
26-30-22-25	17.090	10.332	1.654	.098	1.000
51+-22-25	16.083	15.443	1.041	.298	1.000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is .05.

Appendix Q: Q13 Training Elements and Gender and ELT Experience

	Q2.Gender	N	Mean	Mean Rank	Sum of Ranks
Q13.[Assessment]	Male	56	3.80	52.33	2930.50
	Female	57	4.09	61.59	3510.50
	Total	113	3.95		
Q13.[Technical aspects]	Male	56	4.18	52.23	2925.00
	Female	57	4.42	61.68	3516.00
	Total	113	4.30		
Q13.[Pedagogical issues]	Male	56	3.84	50.04	2802.00
	Female	57	4.23	63.84	3639.00
	Total	113	4.04		

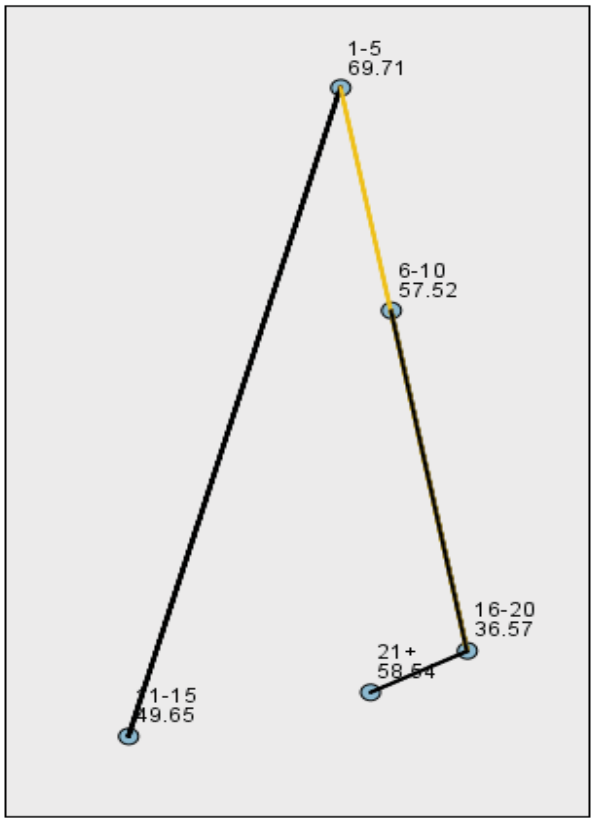
Mann-Whitney Test

Test Statistics[a]

	Q13.[Assessment]	Q13.[Technical aspects]	Q13.[Pedagogical issues]
Mann-Whitney U	1334.500	1329.000	1206.000
Wilcoxon W	2930.500	2925.000	2802.000
Z	-1.579	-1.705	-2.376
Asymp. Sig. (2-tailed)	.114	.088	.018

a. Grouping Variable: Q2.Gender

Pairwise Comparisons of Q4. ELTExpGroup



Each node shows the sample average rank of Q4. ELTExpGroup.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
16-20-11-15	13.082	10.238	1.278	.201	1.000
16-20-6-10	20.948	10.238	2.046	.041	.408
16-20-21+	-21.970	12.150	-1.808	.071	.706
16-20-1-5	33.143	9.767	3.393	.001	.007
11-15-6-10	7.865	8.566	.918	.359	1.000
11-15-21+	-8.888	10.779	-.825	.410	1.000
11-15-1-5	20.060	7.996	2.509	.012	.121
6-10-21+	-1.022	10.779	-.095	.924	1.000
6-10-1-5	12.195	7.996	1.525	.127	1.000
21+-1-5	11.173	10.332	1.081	.280	1.000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is .05.

Appendix R: Q13 Training Elements and University Experience

Ranks

	Q5. UniÊxpGroup	N	Mean Rank
Q13.[Assessment]	1-5	54	60.96
	6-10	27	43.63
	11-15	14	65.07
	16+	18	58.89
	Total	113	
Q13.[Technical aspects]	1-5	54	57.40
	6-10	27	49.59
	11-15	14	59.25
	16+	18	65.17
	Total	113	
Q13.[Pedagogical issues]	1-5	54	65.62
	6-10	27	46.06
	11-15	14	60.96
	16+	18	44.47
	Total	113	

Test Statistics[a,b]

	Q13.[Assessment]	Q13.[Technical aspects]	Q13.[Pedagogical issues]
Chi-Square	6.847	3.180	10.789
df	3	3	3
Asymp. Sig.	.077	.365	.013

a. Kruskal Wallis Test

b. Grouping Variable: Q5. UniÊxpGroup

Mann-Whitney Test

Ranks

	Q5. UniÊxpGroup	N	Mean Rank	Sum of Ranks
Q13.[Pedagogical issues]	1-5	54	45.59	2462.00
	6-10	27	31.81	859.00
	Total	81		

Test Statistics[a]

	Q13.[Pedagogical issues]
Mann-Whitney U	481.000
Wilcoxon W	859.000
Z	-2.661
Asymp. Sig. (2-tailed)	.008

a. Grouping Variable: Q5. UniÊxpGroup

Mann-Whitney Test

Ranks

	Q5. UniÊxpGroup	N	Mean Rank	Sum of Ranks
Q13.[Pedagogical issues]	1-5	54	39.82	2150.50
	16+	18	26.53	477.50
	Total	72		

Test Statistics[a]

	Q13.[Pedagogical issues]
Mann-Whitney U	306.500
Wilcoxon W	477.500
Z	-2.516
Asymp. Sig. (2-tailed)	.012

a. Grouping Variable: Q5. UniÊxpGroup

Appendix S: Q13 Training Elements and University Membership

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Q13. [Pedagogical issues] is the same across categories of Uni.	Independent-Samples Kruskal-Wallis Test	.042	Reject the null hypothesis.
2	The distribution of Q13. [Assessment] is the same across categories of Uni.	Independent-Samples Kruskal-Wallis Test	.866	Retain the null hypothesis.
3	The distribution of Q13.[Technical aspects] is the same across categories of Uni.	Independent-Samples Kruskal-Wallis Test	.427	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Each node shows the sample average rank of Uni.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
1.00-2.00	-10.211	7.300	-1.399	.162	.486
1.00-3.00	-22.000	8.736	-2.518	.012	.035
2.00-3.00	-11.789	7.300	-1.615	.106	.319

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is .05.

Mann-Whitney Test

Ranks

	Uni	N	Mean Rank	Sum of Ranks
Q13.[Pedagogical issues]	1.00	25	20.94	523.50
	3.00	25	30.06	751.50
	Total	50		

Test Statistics[a]

	Q13.[Pedagogical issues]
Mann-Whitney U	198.500
Wilcoxon W	523.500
Z	-2.365
Asymp. Sig. (2-tailed)	.018

a. Grouping Variable: Uni

Appendix T: Q13 Training Elements and ICT Competence

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Q13. [Pedagogical issues] is the same across categories of Q7.IctComp.	Independent-Samples Kruskal-Wallis Test	.853	Retain the null hypothesis.
2	The distribution of Q13. [Assessment] is the same across categories of Q7.IctComp.	Independent-Samples Kruskal-Wallis Test	.540	Retain the null hypothesis.
3	The distribution of Q13.[Technical aspects] is the same across categories of Q7.IctComp.	Independent-Samples Kruskal-Wallis Test	.846	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Appendix U: Q13 Training Elements and Value of Distance Education

Spearman's rho Correlation		
		Q10.ValDistEdu
Q13.[Assessment]	Correlation Coefficient	.295**
	Sig. (2-tailed)	.002
	N	113
Q13.[Technical aspects]	Correlation Coefficient	.331**
	Sig. (2-tailed)	.000
	N	113
Q13.[Pedagogical issues]	Correlation Coefficient	.144
	Sig. (2-tailed)	.129
	N	113

Appendix V: Q14 Training and Support Types and Age Groups

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Q14.[Online tutorials] is the same across categories of Q1. Agegroup.	Independent-Samples Kruskal-Wallis Test	.006	Reject the null hypothesis.
2	The distribution of Q14.[Online faculty development courses/programs] is the same across categories of Q1. Agegroup.	Independent-Samples Kruskal-Wallis Test	.071	Retain the null hypothesis.
3	The distribution of Q14.[Individual training/support from faculty support personnel] is the same across categories of Q1. Agegroup.	Independent-Samples Kruskal-Wallis Test	.532	Retain the null hypothesis.
4	The distribution of Q14.[Group workshop(s) provided by the institution] is the same across categories of Q1. Agegroup.	Independent-Samples Kruskal-Wallis Test	.002	Reject the null hypothesis.
5	The distribution of Q14.[Technical support provided by the institution] is the same across categories of Q1. Agegroup.	Independent-Samples Kruskal-Wallis Test	.730	Retain the null hypothesis.
6	The distribution of Q14. [Pedagogical support provided by the institution] is the same across categories of Q1. Agegroup.	Independent-Samples Kruskal-Wallis Test	.037	Reject the null hypothesis.
7	The distribution of Q14.[Assistance from colleagues] is the same across categories of Q1. Agegroup.	Independent-Samples Kruskal-Wallis Test	.282	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Each node shows the sample average rank of Q1. Agegroup.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
51+-26-30	12.479	13.524	.923	.356	1.000
51+-46-50	15.938	16.529	.964	.335	1.000
51+-41-45	21.028	16.131	1.304	.192	1.000
51+-31-35	24.402	14.030	1.739	.082	1.000
51+-36-40	30.200	14.246	2.120	.034	.714
51+-22-25	49.625	15.303	3.243	.001	.025
26-30-46-50	-3.459	11.994	-.288	.773	1.000
26-30-41-45	-8.549	11.439	-.747	.455	1.000
26-30-31-35	-11.924	8.215	-1.451	.147	1.000
26-30-36-40	-17.721	8.579	-2.066	.039	.816
26-30-22-25	37.146	10.238	3.628	.000	.006
46-50-41-45	5.090	14.872	.342	.732	1.000
46-50-31-35	8.465	12.563	.674	.500	1.000
46-50-36-40	14.262	12.803	1.114	.265	1.000
46-50-22-25	33.688	13.970	2.411	.016	.334
41-45-31-35	3.374	12.034	.280	.779	1.000
41-45-36-40	9.172	12.285	.747	.455	1.000
41-45-22-25	28.597	13.496	2.119	.034	.716
31-35-36-40	-5.798	9.358	-.620	.536	1.000
31-35-22-25	25.223	10.899	2.314	.021	.434
36-40-22-25	19.425	11.176	1.738	.082	1.000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is .05.

Appendix W: Q14 Training and Support Types and Gender

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Q14.[Online tutorials] is the same across categories of Q2.Gender.	Independent-Samples Mann-Whitney U Test	.866	Retain the null hypothesis.
2	The distribution of Q14.[Online faculty development courses/programs] is the same across categories of Q2.Gender.	Independent-Samples Mann-Whitney U Test	.438	Retain the null hypothesis.
3	The distribution of Q14.[Individual training/support from faculty support personnel] is the same across categories of Q2.Gender.	Independent-Samples Mann-Whitney U Test	.607	Retain the null hypothesis.
4	The distribution of Q14.[Group workshop(s) provided by the institution] is the same across categories of Q2.Gender.	Independent-Samples Mann-Whitney U Test	.060	Retain the null hypothesis.
5	The distribution of Q14.[Technical support provided by the institution] is the same across categories of Q2.Gender.	Independent-Samples Mann-Whitney U Test	.386	Retain the null hypothesis.
6	The distribution of Q14.[Pedagogical support provided by the institution] is the same across categories of Q2.Gender.	Independent-Samples Mann-Whitney U Test	.158	Retain the null hypothesis.
7	The distribution of Q14.[Assistance from colleagues] is the same across categories of Q2.Gender.	Independent-Samples Mann-Whitney U Test	.029	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Mann-Whitney Test

Ranks

	Q2.Gender	N	Mean Rank	Sum of Ranks
Q14.[Assistance from colleagues]	Male	56	50.53	2829.50
	Female	57	63.36	3611.50
	Total	113		

Test Statistics[a]

	Q14.[Assistance from colleagues]
Mann-Whitney U	1233.500
Wilcoxon W	2829.500
Z	-2.179
Asymp. Sig. (2-tailed)	.029

a. Grouping Variable: Q2.Gender

Means

Report

Q14.[Assistance from colleagues]

Q2.Gender	Mean	N	Std. Deviation
Male	3.61	56	1.107
Female	4.05	57	.915
Total	3.83	113	1.034

Appendix X: Q14 Training and Support Types and University Membership, ELT Experience and University Experience

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Q14.[Online tutorials] is the same across categories of Uni.	Independent-Samples Kruskal-Wallis Test	.495	Retain the null hypothesis.
2	The distribution of Q14.[Online faculty development courses/programs] is the same across categories of Uni.	Independent-Samples Kruskal-Wallis Test	.356	Retain the null hypothesis.
3	The distribution of Q14.[Individual training/support from faculty support personnel] is the same across categories of Uni.	Independent-Samples Kruskal-Wallis Test	.760	Retain the null hypothesis.
4	The distribution of Q14.[Group workshop(s) provided by the institution] is the same across categories of Uni.	Independent-Samples Kruskal-Wallis Test	.675	Retain the null hypothesis.
5	The distribution of Q14.[Technical support provided by the institution] is the same across categories of Uni.	Independent-Samples Kruskal-Wallis Test	.735	Retain the null hypothesis.
6	The distribution of Q14. [Pedagogical support provided by the institution] is the same across categories of Uni.	Independent-Samples Kruskal-Wallis Test	.545	Retain the null hypothesis.
7	The distribution of Q14.[Assistance from colleagues] is the same across categories of Uni.	Independent-Samples Kruskal-Wallis Test	.741	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Q14.[Online tutorials] is the same across categories of Q4. ELTExpGroup.	Independent-Samples Kruskal-Wallis Test	.785	Retain the null hypothesis.
2	The distribution of Q14.[Online faculty development courses/programs] is the same across categories of Q4. ELTExpGroup.	Independent-Samples Kruskal-Wallis Test	.931	Retain the null hypothesis.
3	The distribution of Q14.[Individual training/support from faculty support personnel] is the same across categories of Q4. ELTExpGroup.	Independent-Samples Kruskal-Wallis Test	.934	Retain the null hypothesis.
4	The distribution of Q14.[Group workshop(s) provided by the institution] is the same across categories of Q4. ELTExpGroup.	Independent-Samples Kruskal-Wallis Test	.780	Retain the null hypothesis.
5	The distribution of Q14.[Technical support provided by the institution] is the same across categories of Q4. ELTExpGroup.	Independent-Samples Kruskal-Wallis Test	.742	Retain the null hypothesis.
6	The distribution of Q14.[Pedagogical support provided by the institution] is the same across categories of Q4. ELTExpGroup.	Independent-Samples Kruskal-Wallis Test	.204	Retain the null hypothesis.
7	The distribution of Q14.[Assistance from colleagues] is the same across categories of Q4. ELTExpGroup.	Independent-Samples Kruskal-Wallis Test	.868	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Q14.[Online tutorials] is the same across categories of Q5. UniExpGroup.	Independent-Samples Kruskal-Wallis Test	.590	Retain the null hypothesis.
2	The distribution of Q14.[Online faculty development courses/programs] is the same across categories of Q5. UniExpGroup.	Independent-Samples Kruskal-Wallis Test	.604	Retain the null hypothesis.
3	The distribution of Q14.[Individual training/support from faculty support personnel] is the same across categories of Q5. UniExpGroup.	Independent-Samples Kruskal-Wallis Test	.569	Retain the null hypothesis.
4	The distribution of Q14.[Group workshop(s) provided by the institution] is the same across categories of Q5. UniExpGroup.	Independent-Samples Kruskal-Wallis Test	.984	Retain the null hypothesis.
5	The distribution of Q14.[Technical support provided by the institution] is the same across categories of Q5. UniExpGroup.	Independent-Samples Kruskal-Wallis Test	.663	Retain the null hypothesis.
6	The distribution of Q14.[Pedagogical support provided by the institution] is the same across categories of Q5. UniExpGroup.	Independent-Samples Kruskal-Wallis Test	.237	Retain the null hypothesis.
7	The distribution of Q14.[Assistance from colleagues] is the same across categories of Q5. UniExpGroup.	Independent-Samples Kruskal-Wallis Test	.221	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Appendix Y: Q7 ICT Competence and Age Groups, Gender, University Membership, ELT Experience and University Experience

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Q7.IctComp is the same across categories of Q1. Agegroup.	Independent-Samples Kruskal-Wallis Test	.836	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Q7.IctComp is the same across categories of Q2. Gender.	Independent-Samples Mann-Whitney U Test	.053	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Q7.IctComp is the same across categories of Uni.	Independent-Samples Kruskal-Wallis Test	.848	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Q7.IctComp is the same across categories of Q4. ELTExpGroup.	Independent-Samples Kruskal-Wallis Test	.667	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Q7.IctComp is the same across categories of Q5. UniExpGroup.	Independent-Samples Kruskal-Wallis Test	.914	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.