IN-SERVICE ENGLISH TEACHERS' USE OF INFORMATION AND COMMUNICATION TECHNOLOGY FOR SELF-DIRECTED PROFESSIONAL DEVELOPMENT

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Approval of the Graduate School of Social Sciences

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ABSTRACT

IN-SERVICE ENGLISH TEACHERS' USE OF INFORMATION AND
COMMUNICATION TECHNOLOGY FOR SELF-DIRECTED PROFESSIONAL
DEVELOPMENT

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This research investigated in-service English teachers' use of information and communication technology (ICT), especially the Internet, for their self-directed professional development (SDPD). The purpose of this study was to investigate English teachers' use of ICT to further their professional development and offer suggestions to improve self-directed professional development of teachers through ICTs.

Sequential explanatory design of mixed method, integrating both quantitative and qualitative data, was implemented in the study. Quantitate data were collected through an online questionnaire which was completed by 184 English teachers working at primary, secondary, high school and university levels in Turkey. Qualitative data were collected through semi-structured interviews which were realized by 12 voluntary teachers completing the questionnaire. Quantitative data were analyzed descriptively through a statistical analysis package used in social sciences. Qualitative data were

transcribed, relevant codes were extracted, themes were formulated and frequencies were noted. Both data were triangulated to get a comprehensive understanding of the results.

The findings of the study indicated that English teachers facilitated from ICT resources, especially the Internet, for overall professional development, practices at classroom level and collaboration with others to great extent. Results also showed that there were both promoting and inhibiting factors affecting teachers' use of ICT resources. However, promoting factors outweighed inhibiting factors. Teachers mentioned more promoting factors compared to inhibiting factors. Participants also offered suggestions to both teachers and administrators to facilitate from ICT resources more effectively for teacher professional development.

Keywords: Teacher professional development, information and communication technology, self-directed learning, teaching English

ÖZ

HİZMET İÇİ İNGİLİZCE ÖĞRETMENLERİNİN ÖZ YÖNETİMLİ MESLEKİ GELİŞİMLERİ İÇİN BİLİŞİM VE İLETİŞİM TEKNOLOJİSİ KULLANIMLARI

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Bu çalışma hizmet içi İngilizce öğretmenlerinin öz yönetimli mesleki gelişimleri için bilgi ve iletişim teknolojileri, özellikle internet, kullanımını araştırmıştır. Bu çalışmanın amacı İngilizce öğretmenlerinin mesleki gelişimlerini ilerletmek için BİT kullanımlarını araştırmak ve BİT aracılığıyla öğretmenlerin öz yönetimli mesleki gelişimlerini ilerletmek için öneriler sunmaktır.

Çalışmada nicel ve nitel yöntemlerin birlikte kullanıldığı karma desenlerden açımlayıcı sıralı desen kullanılmıştır. Nicel veri Türkiye' de ilkokul, ortaokul, lise ve üniversite seviyelerinde çalışan 184 İngilizce öğretmeni tarafından çevrimiçi anket aracılığıyla toplanmıştır. Nitel veri anketi dolduran on iki gönüllü öğretmen ile gerçekleştirilen yarı yapılandırılmış görüşmeler aracılığıyla toplanmıştır. Nicel veri sosyal bilimlerde kullanılan istatistik analiz paketi ile betimsel olarak analiz edilmiştir. Nitel veri transkript edildi, ilgili kodlar çıkarıldı, temalar oluşturuldu ve yüzdelikler not edildi. Verilerden daha anlaşılabilir sonuçlar çıkarmak için üçgenleme yöntemi kullanılmıştır.

Çalışma sonuçları İngilizce öğretmenlerinin BİT kaynaklarını, özellikle interneti, genel mesleki gelişimleri, sınıf düzeyinde uygulamalar ve diğerleriyle iletişim kurmak için büyük oranda kullandıklarını göstermiştir. Sonuçlar öğretmenlerin BİT kullanımını etkileyen hem motive edici hem de kısıtlayıcı faktörler olduğunu da göstermiştir. Fakat, motive edici faktörler kısıtlayıcı faktörlerden daha ağır basmıştır. Kısıtlayıcı faktörlerle karşılaştırıldığında öğretmenler daha fazla motive edici faktörlerden bahsetmişlerdir. Katılımcılar BİT kaynaklarının öğretmen mesleki gelişiminde daha etkili kullanımı sağlamak için öğretmenlere ve yöneticilere öneriler de sunmuşlardır.

Anahtar Kelimeler: Öğretmen mesleki gelişimi, bilgi ve iletişim teknolojisi, öz yönetimli öğrenme, İngilizce öğretimi

To my mother, Gülcan Erdem

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ICT: Information and communication technology

SDPD: Self-directed professional development

PD: Professional development

TPD: Teacher professional development

EFL: English as a foreign language

IT: Information technology

CALL: Computer assisted language learning

ESOL: English for speakers of other languages

CHAPTER 1

INTRODUCTION

1.1 Introduction

Within the scope of this chapter, background of the study, statement of the problem, research questions, significance of the study and theoretical framework are presented respectively.

1.2 Background of the Study

It is suggested for teachers to follow the latest changes, update their knowledge continually and keep up with the high technological world. When teachers teach with the new techniques and the latest information, achievement of students can increase (Adada, 2007; Hoesein, 2015). At this point, quality teacher professional development becomes crucially important. High quality professional development is effective in improving teaching and learning practices (Adsit, 2004).

Technology integration into societies has changed the way teachers communicate, learn and improve themselves by searching and experiencing new ways of improving themselves professionally (Ross, 2013). In addition, teachers face more complexities and opportunities than before with the changes in today's schools mostly resulting from computer technology (Ostendorf et al., 2005). Globally competent teachers with sufficient knowledge and skills are expected to deal with learners possessing 21st century skills (Agbaria, 2011). Students being digital natives (who were born after 1980) in today's 21st century schools perceive technology as a natural part of their lives (Adada, 2007) and require teachers to use technology effectively, live up to the changes of the high technological world and be facilitator of knowledge (Lemoine et. al., 2016). By being digitally literate, teachers can support students with the skills that they will need to be successful in the technologically dominated world (Pianfetti,

2001). One of the ways to succeed is through quality professional development practices.

Pedagogical orientations of 21st century are lifelong learning and connectedness (Petras, 2010). Therefore, professional development should be ongoing, focused, social constructivist and situated in classroom practice to be more effective (Trust, 2016). Teacher professional development (TPD) should be life long, reflection based enabling transformative learning and progressive growth (Liu et al., 2016). Professional development of teachers can be realized through formal (conferences, seminars, workshops, course etc.) and informal way (discussion among friends, independent reading, learning from peers, observation of a collegiate etc.) (Mizell, 2010).

Formal professional development supposes that teachers improve themselves professionally when they join these programs regularly in a planned way (Richter et. al., 2011). However, traditional formal professional development (PD) in the single shot workshop format has been criticized for a long time because it is not related to the reality of classroom practices and it lacks follow-up support for an effective change in practice (Talley, 1998). Formal one shot professional development workshops or even longer ones are of limited value unless they provide ongoing support . Short-term formal professional development practices that were designed without special attention to teachers' individual professional needs are inefficient to improve teachers professionally in the long run (Korkmazgil, Seferoğlu, 2013). In todays' knowledge based world in which information is quickly exchanged, teachers are challenged to update their knowledge, learn new skills and technological tools for learning.

However, traditional professional development practices cannot meet teachers' professional needs as teachers may not have either required resources or time to perform formal professional development practices (Guemide and Benachaiba, 2012). Learning should become part of everyday activities rather than formal training programs. In addition, contextual factors such as where teachers lived, in which context they taught or how teachers learned are crucially important for effective professional development programs (Anwaruddin, 2016). Teachers' specific needs

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and busy schedules are not taken into consideration in most of the existing models of teacher professional development (Sprague, 2007). Kabakcı (2009) states that in Turkey, teacher professional development activities are not efficient and beneficial. In addition, it is sated that current teacher professional development practices do not focus on teachers' actual professional needs. Therefore, teachers are not willing to join formal professional development practices (Kabakcı, 2009). Seferoglu and Korkmazgil (2013) suggest that teacher directed professional development practices which are suitable to teachers' own professional needs should be suggested and planned for ongoing teacher professional development.

In the last decades, there is a shift from traditional teacher professional development (TPD) activities towards the fostering of self-organized and sustaining teacher professional development activities (Liu et al., 2016). Informal professional development practices have potentials to lead teachers to experience self-directed learning with respect to their interests and needs autonomously. Teachers themselves are decision makers in their learnings in self-directed learning practices (Beach, 2017; Richter et. al., 2011). Online teacher professional development programs have been introduced to meet the demands of flexibility, sustainability and rigor in PD programs (Killion, 2000). E-learning through ICT can make teachers profession easier and promotes their professional development. They can search resources in any convenient time for themselves, in any place that are equipped with required technology and the Internet, they can interact and learn from other teachers via online communities or individual relationships and they can enrich their teaching styles in a more student-centered, creative and interactive way (Resta, 2005). Zenger and Uehlein (2001) state that traditional and online professional learning should be facilitated together for an effective teacher professional growth.

Recently, technology is also included in the definitions of professional development of teachers to enhance teachers professionally (Pianfetti, 2001). New technologies have potentials to overcome the limitations of traditional professional development of teachers (Yang and Liu 2004; Pianfetti, 2001). Teachers no longer need to spare time and money to travel to central locations to attend formal training workshops. The whole world was transformed to a global village thanks to information and

communication technologies (ICTs) (Olakulehin, 2007). ICTs are tools that are facilitated "to produce, store and process, distribute and exchange information" (Tella et. al., 2007). Through ICTs, teachers can access to many resources, workshops, digital libraries, forums etc. Use of ICTs is one of the effective ways that teachers adopted for their self-directed professional development (Mushayikwa, 2013). ICT can be a good tool and tutor for prosperous teacher professional development. It gives a good opportunity for teachers to develop themselves professionally, to be in contact with peers and experts beyond their face to face connections and to engage in reflection and dialog. ICTs can provide a flexibility to learn at any time and place. ICT provides its users opportunities to use asynchronous (e-mail, listservs, and newsgroups etc.) and synchronous (Multi-User Object-Oriented environments (MOOs), chat rooms etc.) capacity of technology (Talley, 1998).

Ministry of National Education in Turkey has proposed an action plan for the years of 2014-2018 to regulate the non-formal learning of adult education on lifelong learning basis (MoNE, 2014). The report of MoNE (2014) indicates that importance to lifelong learning has increased in Turkey since 2000s. It is also stated in the report that information technology changed the nature of education within the scope of globalization in adult education (Sayılan, 2015). "There is a transition from education to learning" (Sayılan, 2015, p. 161). Therefore, individuals that lack digital competence will be in a disadvantaged position to reach the information via the Internet or public services presented online (MoNE, 2014).

1.3 Statement of the Problem

One of the problems in language teacher professional development might be that even though teacher professional development practices can be realized through both formally in a traditional way and informally in a self-directed way, most of the research focus on traditional formal professional development practices disregarding self-directed professional development of teachers. However, English teachers also improve in an informal and self-directed way in their professions (Alhabahba and Mahfoodh, 2016; Shin and Son, 2007; Khan, 2015).

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In the last decades, technology has been integrated in our lives in a way that it is used nearly every domain of our lives. Teacher professional development is one of these domains. Teachers also benefit from information and communication technologies (ICTs) for their professional development in a self-directed way (Hinostroza et. al., 2016; Mushayikwa and Lubben, 2008; Mushayikwa, 2013). ICTs have the potential to enable English teachers to reach resources, download lesson plans, curricular activities, join online courses, learn strategies of instruction in a fastest way ever (Adada, 2007). Chylinsky and Hanewald (2009) remark that newly emerging information and communication technologies show a great promise for language teachers in reaching more authentic and various teaching materials. In addition, Hinostroza et. al. (2011) states that ICT is not used frequently in classrooms but it is used for some specific teaching practices.

However, teachers' use of these technologies in a self-directed way for their professional development needs to be investigated to increase the use of ICT for self-directed professional development practices of teachers. More research is required to investigate the potentials of the use of ICT for professional development practices (Meneses et. al., 2012). The use of ICT should be encouraged and opportunities should be enhanced (Hinostroza et. al., 2011). Therefore, understanding which ICT resources do English teachers use and how do they use these resources is really important. In addition, factors that encourage and discourage English teachers to use ICT resources need to be investigated to understand teachers' motives to use these resources and factors that affect their motives to use these resources. Moreover, suggestions of English teachers to use ICT resources for the professional development of English teachers are also important to encourage teachers to use ICT resources for their professional development and to increase opportunities.

Therefore, this research was carried out to investigate the use of ICT, especially the Internet, for self-directed professional development (SDPD) of in-service English teachers working at primary, secondary, high school, and university levels in Turkey. The purpose of this study was to investigate teachers' use ICTs to further their professional development and offer suggestions to improve self- directed professional development of teachers through ICTs.

1.4 Research Questions

1. To what extent do EFL teachers make use of information and communication technology (ICT) resources, especially the Internet, for:

    a. overall professional development?

    b. practices at classroom level?

    c. collaboration with others?

2. Which information and communication technology (ICT) resources do EFL teachers use for self-directed professional development (SDPD)?

3. How do EFL teachers use ICT resources for self-directed professional development (SDPD)?

4. What are the factors that promote/ inhibit EFL teachers' use of information and communication technology (ICT) for self-directed professional development (SDPD)?

5. What are EFL teachers' suggestions to use information and communication technology (ICT) resources for professional development?

1.5 Significance of the Study

In the last decades, the world has witnessed an increase in the use of ICT and countries developed strategies and models to integrate ICT into education. Innovations and changes in ICTs have also affected education and teacher education programs in Turkey. ICT has been included in the teacher education curriculum by the Higher Education Council (HEC) and "Computer" and "Instructional Technology and Material Development (ITMD)" courses were started to be given as compulsory courses in primary and secondary pre-service teacher education programs (YOK, 1998). Besides, Computer and Instructional Technology Teacher Training Department was opened for the purpose of providing information technology (IT) coordinators in the first place and later ICT literate teachers for all state schools (Usun, 2009). Even though there are efforts to grow ICT literate teachers through pre-service education, it is not enough.

Although ICT holds the potential to become one of the best ways for teachers to grow professionally and raise information capabilities, there is limited research about it. Much of the research about learning through ICT is focused on students ignoring the fact that teachers are also learners. Even though there are studies investigating ICT and teacher professional development, most of them focus on teachers' ICT capabilities not professional development through ICT (Demir, 2010). Teachers also use ICT in an informal way to develop professionally.

Contrary to traditional professional development which are planned to serve narrow purposes, informal professional development supports teachers to fulfill holistic needs (Trust, 2016).) However, such kind of professional development of teachers were not studied as much as formal professional development (Meneses et. al., 2012). Supporting, encouraging and developing informal teacher professional development was neglected (Kynt et al., 2016). Thus, there is still limited understanding of how and what teachers learn through the use of ICTs for their self-directed professional development.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

Within the scope of this chapter, literature related to the teacher professional development, teacher professional development through information and communication technology (ICT) and English teachers' use of ICT for their professional development practices are presented respectively.

2.2 Teacher Professional Development

Professional development is an ongoing process that makes chances in teachers' learning and teaching practices through interaction with others. It is not just short-term courses, seminars or workshops given formally. Professional development is a process that continues during teachers' careers and includes practices that teachers perform to improve their teachings to satisfy students' needs (Diaz Maggioli, 2004). Schlager and Fusco (2003) defines professional development as a lifelong, context-based, ongoing efforts which was regulated by teachers' own needs and career development stage, students learning needs, contextual factors. Its main aim is to address the students' needs by improving, learning, supporting and sharing knowledge. It is a cooperative activity which includes taking support from other teachers, administrators or other people and giving support to others. Formal and informal professional development practices go along with together and they balance each other in satisfying teachers' needs.

The scope of professional development is expanded currently and it is now perceived as an ongoing process which starts form pre-service teacher education programs to in-service formal and informal professional development activities (Richter et. al., 2011). Therefore, it can be defined as a process that extends teachers' knowledge, motivation, attitudes

towards learning and teaching both formally and informally with various learning opportunities (Richter et. al., 2011).   Librera et. al. (2004) state that professional development:

- improves teaching practices,
- presents teachers and students opportunities to satisfy their personal and collective needs and to use them on their teaching and learning facilities,
- increase the quality of practices at schools,
- supports raising the standards of educational policies,
- enables teachers to grasp and use ICTs efficiently.

Professional and personal development of teachers have a positive effect on students' learning and improving the quality of education (Jovanova-Mitkovska, 2010). The study of Hilton et al. (2016) investigated the effect of Mathematics teacher professional development program on students' success in a quantitative study. After one year of professional development program, an increase was observed in students learning. Vermunt (2014) also states that teacher professional development is important for students' success and shows it in a Figure 1. Via teacher professional development, teachers go through a learning process. The outcomes of teachers' learnings from these professional development practices affect teachers' teaching practices and these initiate student learning. Students also benefit from teachers' learning outcomes because teachers' teaching are also affected from what they have learned. Thus, students' learning outcomes are indirectly affected from teacher professional development practices.
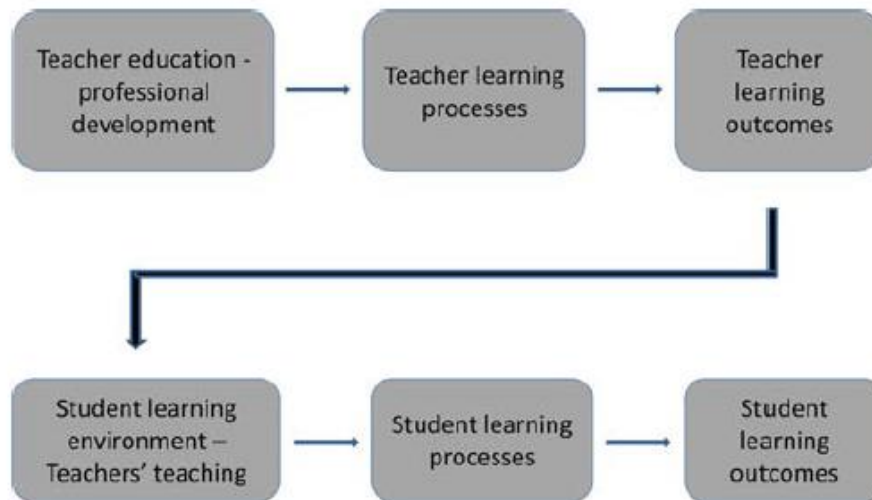
Figure 1: Effect of teacher professional development on students' learning (Vermunt, 2014).

Professional development practices which are performed for years has little or no effect on increasing students' learning (Diaz-Maggioli, 2004). Ongoing professional development is necessary for teachers to expand their knowledge and learn new chances in the field (Saleh and Pretorius, 2006). However, traditional professional development activities are not effective to support teachers' life-long professional development needs. Unfortunately, professional development workshops are perceived by many teachers as a day with coffee breaks and a nob consultant without students around even if they are really intended to make a difference in teachers' professional lives (Diaz-Maggioli, 2004). One of the drawbacks of traditional formal short term professional development activities is that they refer to problems about general teaching issues but they do not pay attention to contextual factors that teachers face with. In addition, most of the time, they do not suggest practical solutions or they do not offer opportunities to practice what they learned actively (Harwell, 2003). Informal professional development practices lead teachers to experience self-directed learning with respect to their interests and needs autonomously. Teachers themselves are decision makers in their learnings in self-directed learning practices

(Beach, 2017). Therefore, self-directed learning is more suitable for adult learning (Saleh and Pretorius, 2006). Besides this, Thacker (2015) states that informal professional development practices should not be though as a replacement of formal professional development practices. However, informal professional development activities present teachers opportunities to develop themselves in an ongoing, contextual and collaborative way, which is missing in formal professional development activities. Harwell (2003) suggests the main characteristics of professional development programs that take into consideration the contextual factors as following:

- It supports interaction among master teachers.

- It takes place over an extended period of time (rather than in one-shot workshops and seminars).

- It provides opportunities for teachers to try new behaviors in safe environments and receive feedback from peers. (p.7)

Even if, teacher education faculties prepare teacher candidates for actual teaching practices, it is impossible to foresee all the challenges that they can face with in their actual teaching practices. Kabakcı (2009) states that pre- service teachers have a chance to improve themselves professionally as they are still students at their institutions. However, when they start their in-service teachings they might need guidance and support to perform their jobs and to improve themselves professionally. Without support, some of the novice teachers leave their profession at the beginning of their professions or they just learn to overcome (Darling-Hammond, 1998). Therefore, effective professional development activities are crucially important for in-service teachers to be updated, to overcome the challenges and to support their ongoing professional development. Professional development programs should be designed by bearing in mind that teachers are experienced and talented individuals who interact with their students; teachers have different characteristics, needs and experiences; teachers' professional development should be well integrated into their daily lives; teachers should be actively involved; teacher professional development involves practices to improve oneself other than a must

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that is forced and context of teaching is needed to be considered (Diaz Maggioli, 2004). Characteristics of professional development programs that improves teaching and learning practices include:

- teachers actively engaged in teaching and assessment procedures,
- collaboration among other teachers,
- solutions to current problems and change in practice, arrangement by taking into consideration teachers' actual needs (Darling-Hammond, 1998).

2.2.1 Teacher Professional Development Stages

In the literature, it is emphasized that teachers at different stages of teaching experience show differences in their teachings, professional development practices and needs (Topkaya and Celik, 2016). Teachers start their profession as novice teachers and with time, they improve themselves and they become more experienced (Figure 2) (Liu, 2004). Therefore, professional development practices should be planned with respect to teachers' needs.
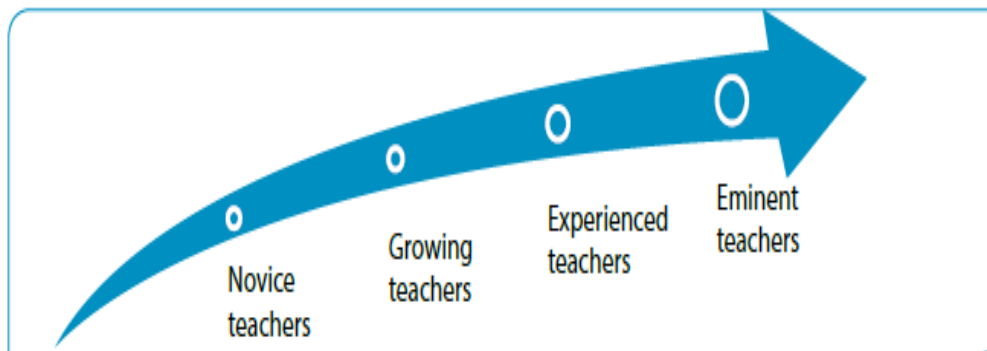
Figure 2: Teachers career development through time (Liu, 2004).

Literature in the field identified different stages that teachers go through in their professional development (Tsui, 2007; Burden, 1982; Huberman, 1989). Tsui (2007) mentions "survival, discovery, exploration, stabilization, self-doubt, experimentation,

diversification, reassessment, serenity and disengagement" phrases that teachers experience during their professional careers. At the beginning of their careers, teachers realize that they are instructors and they have students. With time, they become more experienced and they explore effective teaching methods and they experience stabilization phrase. If they experience negative situations, they also go through a self-doubt phrase. After this phrase, they engage in different teaching methods in a more creative and self-confident way at experimentation, diversification phrases. At one point, teachers reassess their professional live and they go through a stage of serenity. After that stage, teachers recede from professional development activities and this stage is called as disengagement.

In addition, Burden (1982) also refers three career stages, "survival, adjustment and mature", that teachers go through. At the survival stage, teachers are at their first year of teaching and they explore how and what to teach. They are enthusiastic to teach but they also feel insecure to try new ways of teachings. At the second stage, teachers adjust themselves to the teaching profession and they feel more flexible to try new methods and techniques. They also begin to understand students' needs and properties better. Teachers experienced more than five years are thought at the mature stage. At that stage, teachers are more experienced in their teaching practices and they realize that students have different characteristics and their needs might be various. Therefore, teachers try to organize their teachings by maximizing their teaching practices.

Moreover, Huberman (1989) mentions five phases that teachers experience during their careers. First phase is "exploration and stabilization". During this phase teachers focus on their teaching processes not students learning. They try to manage the daily tasks and teachings. At the second phase, which is "commitment" teachers start to engage in students' learning processes and manage to deal with problems. At the third phase, "diversification", teachers realize not all students learn from their teachings and they are at the edge of leaving their profession if they cannot get over this crisis. Fourth stage is "serenity or distancing". At that stage, teachers either follow their profession or leave it under the influence of the crisis experienced at the third phrase. And, at the fifth phase,

"conservatism and regret", teachers retire and get through their careers. Even if teachers experience different stages during their professional lives, there is not a linear relationship among the stages. Teachers can go through a stage at different periods with respect to their personal attributes, working conditions or context of their professional lives (Tsui, 2007).

2.3 Studies on Teacher Professional Development

Literature in the field shows that effective teacher professional development practices improve teachers' teaching and learning activities. The study of Desimone et. al. (2002) investigated the impact of professional development activities of teachers on their teaching practices. Different from other studies, this study compared different forms of professional development activities and the effect of them on teachers teaching practices systematically. It was a longitudinal 3 years' study. Purposeful sampling was used for the selection of participants. Participants were 207 teachers working at elementary, middle and high school levels at 10 different districts. Participants were surveyed at three times. The result of the study showed that teachers practiced better what they have learned when professional development was about specific instructional activities.

In addition, Mak (2010) conducted a study to investigate Hong Kong English teachers' professional development activities and needs. A Likert type survey was developed for the study. Participants of the study were 56 English teachers. Survey was distributed via e-mail to participant teachers and they all answered. Data were analyzed through chi-square test and frequency analysis. Results indicated that most of the participant teachers performed professional development activities within the school environment through peer observations, communications with colleagues etc. mostly because of time restrictions and practicality issues. Results also showed that teachers' ICT knowledge could also affect their professional development need. Half of the participants stated that they were not sure whether they would need professional development activities in 2 years. As ICT integrated into educational practices in the last decades, teachers would also need to improve themselves in this domain.

Moreover, Korkmazgil and Seferoglu (2013) studied English teachers' professional development activities who were working at state schools in Turkey to investigate their professional development needs, their methods and challenges they encountered. The results revealed that English teachers attended professional development activities. However, most of these activities were obligatory in-service trainings. Teachers stated that they needed professional development especially on classroom management, use of technology and teaching the target culture. The study suggested that teacher-led professional development activities required to be encouraged for ongoing development of teachers. Participatory cultures also encourage teachers to develop themselves professionally.

Vescio et. al. (2008) wrote a review paper about the effect of professional learning communities on teaching and learning process. It was stated in the paper that well-organized professional development communities improved teachers' teaching practices and students' achievements. Teachers were found to be positive towards these platforms as they could share their ideas, took help from other teachers and improved themselves professionally. These communities promoted teachers to conduct more student-centered teaching practices.

Teachers pass through different stages during their careers and their attitudes towards professional development activities show differences with respect to their experience. A study was conducted by Richter et. al. (2011) investigated the relationship between teachers' age and their participation to professional development facilities. Age was taken as an indicator of teaching experience through statistical analysis. As a framework of the study, Huberman's (1989) teacher career stage model was used. According to this model, there are five stages named as "survival and discovery, stabilization, experimentation/activism and stocktaking, serenity and conservatism, and disengagement" that comes in order in teachers' professional development. Participants of the study were 1939 teachers from different subjects such as German, English, Mathematics etc. selected from 198 German secondary schools. Teachers participated to

the study voluntarily and their names were kept in private. Formal and informal learning opportunities of teachers were assessed through open ended questions and Likert type questionnaire. The result of the study indicated that teachers' professional development activities were different at different ages.

At the beginning of their careers, teachers engage in professional development activities at a low level. However, towards their mid-career years, the level increased tremendously. And, the rate slowed and decreased towards their after mid-career years. Parallel to this study results, Hürsen (2012) investigated high school teachers' attitudes towards professional development activities. 448 high school teachers working at Turkish Republic of Northern Cyprus (TRNC) was selected randomly for the study. The results found out that there is a significant difference between male and female teachers' attitudes towards professional development. Females were more eager to take initiative for their professional development than males. In addition, the study showed that younger and less experienced teachers were more positive towards professional development activities.

In addition, the study of Ozer and Beycioglu (2010) investigated the relationship between teachers' professional development attitudes and their level of burn-out. Participants of the study were 144 primary school teachers working in Adıyaman. Data were collected through a survey and analyzed via statistical analysis package used in social sciences. The results indicated that teachers were positive towards professional development if it was related to their professional achievement. However, it was also found that teachers who had a feeling of burn-out were negative towards professional development.

Moreover, In a review paper, Kyndt et. al. (2016) studied teachers' professional development activities through informal learning activities. 74 studies selected based on pre-determined criteria were analyzed with respect to teachers' everyday learning activities. The study also investigated if there were differences between experienced and novice teachers' activities of informal professional development. Study revealed that informal learning played a crucial role in teachers' professional development facilities. Teachers' informal activities included communication with other teachers to learn new

things, sharing knowledge and some extracurricular activities. Autonomy, motivation and support were found to be the motives of teachers' informal learning activities. In addition, career opportunities were found to be effective in teachers' professional development activities. Moreover, it was found that experienced and novice teachers' attitudes towards informal learned showed difference even if they both applied to similar informal learning activities.

2.4 Teacher Professional Development through ICT

Technology integration into societies has shifted the way how teachers communicate, learn and improve themselves by searching and experiencing new ways of improving themselves professionally (Ross, 2013). Today, it is nearly impossible to find a professional development program that does not make use of any kind of technology (Schlager and Fusco, 2003).

 Teachers have, most of the time, difficulty in sparing time for face-to face professional development workshops and reaching resources to support their lifelong professional developments (Guemide and Benachaiba, 2012). Therefore, learning through ICT is a good opportunity for teachers. Teachers can reach many resources, attend online seminars, workshops, be part of online communities to exchange knowledge with time and place flexibility. ICT has the power to change professional learning environment of teachers. Networking and collaborative nature of technological applications has a huge effect of teachers' ways of learning and teachings which was different from traditionally conducted way (Eze and Olusola, 2013). Harwell (2003) emphasizes two main advantages of online professional development practices. The first one is that teachers have opportunity to reflect what they have learned by interacting with each other with time flexibility. The second one is that asynchronous property of online professional development practices gives teachers chances to get benefit from the activities in a time that is suitable for them.

Even if there is not just one universal definition of ICT, it generally means all technological devices, networking systems, applications and systems that enable people to interact in today's technological society. Guemide and Benachaiba (2012) defines ICT

as "forms of technologies such as radio, television, DVD, telephone (both fixed and mobile), satellite systems, computer and network hardware and software; as well as the equipment and services associated with these technologies, such as videoconferencing and electronic mail that are used to transmit, store, create, share or exchange information" (p.36). ICT are used in various ways such as to prepare for the lesson, to present course content and to work on screen as an individual or a group (Warren, 2005). Teachers use ICT outside of the classroom to search resources, improve themselves professionally, collaborate with other educators all around the world, get support for teaching and they use ICT inside of the classroom to facilitate it for teaching practices (Ibieta et. al., 2017). Information and communication technologies enables both synchronous and asynchronous communication for teacher professional development. Teachers can benefit from asynchronous communication in any place and time. However, it is slower compared to synchronous communication. Synchronous communication is also used among teachers but especially among small groups for an effective communication (Saleh and Pretorius, 2006). Warren (2005) states that teachers feels competent to use ICT in their teachings but they do not have required technical support and equipment. And, he mentions 3 modes of using the Internet which are downloading, uploading and exchanging information. In addition, Warren (2005) summarizes teachers' various uses of ICT as following:

- "Use ICT to prepare high-quality conventional resources in advance of the lesson
- Use the special facilities of ICT to prepare innovative resources in advance of the lesson.
- Employ one shared computer to run a lesson or make a powerful learning point.
- Use a small cluster of computers in the class.
- Use a suite of computers, enough for one computer each (p.105)".

Resta (2002) mentions a term named as "informatization" which indicates the use of ICT in every part of teaching and learning practices. Active learning is the key stone of this term. Teachers role is to regulate and manage active learning of their students through individual and group works. Learners are active participants of their learning process

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through organizing, finding, analyzing the knowledge via ICT. Mumtaz (2000) suggest the main characteristics of teachers' who use ICT efficiently as following:

- A positive rather than negative attitude towards ICT. Teachers who have positive attitudes towards ICT itself will be positively disposed towards using it in the classroom.
- Pupil choice rather than teacher direction. Teachers who preferred directive styles of teaching tended to rate their own competence as low and made use of helpers with ICT.
- Pupil empowerment as learners rather than pupils receiving instruction.
- A preference for individual study rather than pupils receiving instruction. (p.328)

Besides the advantages of using ICT, there are also factors that prevent teachers to use these technologies. Ertmer (1999) states that there are mainly two factors that inhibit teachers to use ICTs. First one is external factors such as teachers' perception of technology infrastructure of the school, training and encouragement provided by schools and ICT resources. Second one is intrinsic factors. Teachers' beliefs, motivation and their competencies are effective in teachers' decision to use ICT or not. In addition, Ibieta et. al. (2017) also mention some of the barriers that inhibit teachers to use ICT such as teachers' perception of self-competency in using ICT resources, technology infrastructure of the school, students' ICT abilities and interests, teachers' belief of the effectiveness of using ICT for learning and teaching and students' access to these technologies.

Using technologies effectively for teaching and learning practices mostly depends on the teachers' abilities and attitudes towards these technologies (Chylinsky and Hanewald, 2009). Teachers can be grouped into three categories with respect to their attitudes towards ICT (Resta, 2002):

- Those who, having generally positive attitudes towards ICT-usage, encourage their students to acquire computer literacy, thus raising the standard of teaching and learning in the whole system.

- Those who are neutral towards the use of ICTs in education.
- Those with explicitly negative attitudes towards all new technologies. (p.169)

Mobile technologies are one of the latest trends of today's teaching and learning through information and communication technologies. Mobile technologies are mostly individually owned, portable digital technologies that could connect to the Internet and provide multiple opportunities such as communication, searching and sharing knowledge (Wilson et. al., 2016). Mobile technologies can be used effectively in teaching and learning activities. However, teachers need to integrate these technologies by considering pedagogic, technologic and instructional aspects (Wilson et. al., 2016). Therefore, professional development is crucial to integrate these technologies and to support teachers professionally. Mobile devices hold a great potential for learning and teaching activities by enabling in any time and place learning possibilities. However, without effective teaching principles mere presence of mobile devices cannot foster learning and teaching activities (Yu, Lee and Ewing, 2015). To take advantage of these devices, designers need to plan and manage effective strategies to facilitate them.

Todays' generation as digital natives require teachers to adapt new and creative ways of teaching through technology. Students are already digitally competent and they are willing to use the opportunities of learning with technology (Lemoine et. al., 2016). Therefore, teachers need to improve themselves to use technology in their teaching practices. Teachers are also aware of the need for a change in their teaching and learnings and they do not resist that need of using technology effectively but they are not provided with enough opportunities to realize this change (Mumtaz, 2000).

Short-term formal professional development practices that were designed without special attention to teachers' individual professional needs are inefficient to improve teachers professionally in the long run (Korkmazgil, Seferoglu, 2013). Diaz-Maggioli (2004) states that most of the current professional development practices fail to reach the real objectives of the practices because they are arranged by administrators or consultants without taking into consideration teachers' thought and wrongly directed by a thought that teachers need

to correct their teachings. In addition, teachers have little or no authority about the process and results of the practices and most of the practices are far away from reality and practicality. Moreover, teachers' individual needs are disregarded and not all the teachers have a chance to attend these practices. And lastly, systematic evaluation of these practices is missing. Professional development activities which are arranged by teachers' themselves according to their' own professional needs should be suggested and stimulated to ensure ongoing professional development of in-service and pre-service teachers (Korkmazgil, Seferoglu, 2013). Baran and Çagıltay (2006) suggest that when "teachers' life-long learning needs and dissatisfactions to traditional courses are taken into consideration, a training serving lots of teachers and providing time-place independency as social learning environment can be seen as future of the teacher training". This type of learning opens ways to online professional development practices.

Using ICT in teaching and learning facilities have brought many innovations in education (Ali et. al., 2013). Communication through these technologies is easier and access to information is quicker. Teachers can also update their teaching ways and materials by searching latest developments in the field. In addition, ICTs have introduced e-learning. E-learning through ICT makes teachers work easier and supports their professional development. They can reach resources in any convenient time for themselves, in any place that are equipped with required technology and the Internet, they can communicate and learn from other teachers via online communities or individual relationships and they can enrich their teaching styles in a more student-centered, creative and interactive way (Resta, 2005). Advantages of using the Internet as a teaching medium can be listed as:

- "Vast unlimited resources.
- Exciting opportunities for communication projects.
- A growing, evolving medium.
- Highly motivating.
- Classroom-expanding potential.
- Combines well with all other ICT applications for English.

- Generates language uses that are, in themselves, fascinating to study" (Warren, 2005, p.116).

Besides, advantages of using the Internet as a professional development tool, there are also disadvantages related to the use of the Internet for teachers'' professional development. Disadvantages of using the Internet as a teaching medium can be listed as:

- "Access can sometimes be limited to one node in the school, although with the advent of
- Broadband and wireless networks, this picture is changing rapidly.
- Contains unsuitable material, so care has to be exercised.
- Surfing—is it a waste of time?" (Warren, 2005, p.116).

Literature in the field shows that in Turkey, teacher professional development activities related to ICT are not efficient and beneficial. In addition, teachers state that current teacher professional development practices do not focus on teachers' actual professional needs. Therefore, teachers are not willing to join formal professional development practices (Kabakcı, 2009). Teachers are willing to investigate and try new ways of teaching and learning even outside of the school and; technological devices and social media platforms help teachers to perform professional development practices participatory (Marcia and Garcia, 2016). Diaz-Maggioli (2004) states that to make professional development practices more effective, teachers and decision makers should work collaboratively to develop themselves professionally and to address their professional needs and, teachers should be in touch with other educators all around the world and share their best experiences. Online communities are one of the ways to succeed this. Online communities are participatory cultures that allow teachers to communicate, exchange knowledge and learn from each other with time and place flexibility (Saleh and Pretorius, 2006).
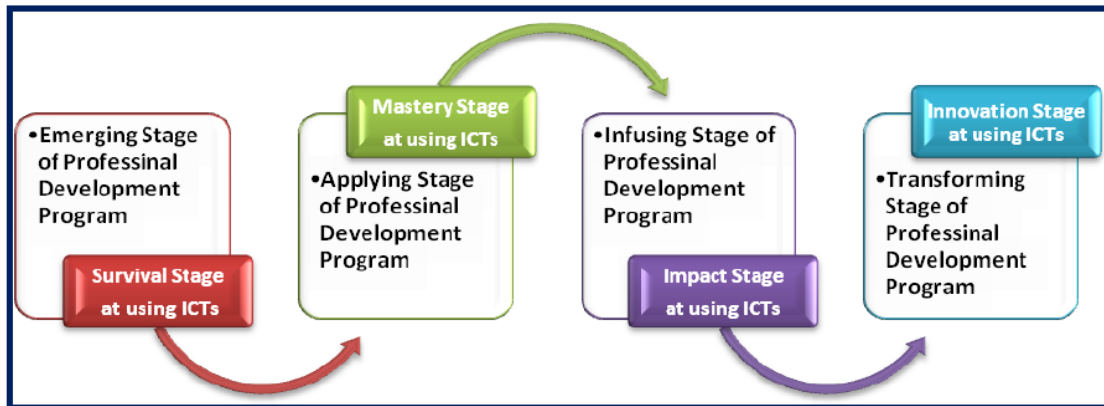
Figure 3: Turkish teachers' professional development of ICT skills (Kabakcı, 2009).

Kabakcı (2009) suggested a framework for Turkish teachers' ICT professional development by taking into consideration teachers' needs, abilities and their technology use (Figure 3) What is crucial in this model was that teachers participated to the program as appropriate to their technology usage level. Moreover, technical requirements for teachers' ICT professional development would be supplied and ongoing communities would be formed to enable teachers to communicate with other teachers. In addition, teachers would prepare portfolio to practice actively what they learned.

2.5 Professional Development of English Teachers through ICT

Using technology is not a must in language teaching and learning facilities. Teaching English is also possible with books and discussions. However, thinking about the complexity of todays' 21st century information age properties, it will be too simplistic to think in that way (Shoffner, 2013). Technology supports teaching and learning. It does not replace anything in language teaching. Shoffner (2013) states that "students should read challenging literature, write original compositions, make persuasive arguments, develop critical thinking, hone analytical reasoning, question taken-for granted beliefs, discuss conflicting viewpoints, and collaborate with peers".

It is clear that newly emerging information and communication technologies show a great promise for language teachers in reaching more authentic and various teaching materials (Chylinsky and Hanewald, 2009). English teachers have already been interested in using the Internet for their professional development with the latest changes in technology. Improvements in ICT stimulate English teachers to use technology to perform creative ways of teaching using various multimedia sources which supports self-directed learning of 21 century for learners (Shin and Son, 2007; Saleh and Pretorius, 2006). Purcell et. al. (2013) stated that digital tools were extensively facilitated both inside and outside of the classroom and teachers were content with this situation and support taken from these technologies.

Luke and Britten (2007) state that to manage effective use of technology in foreign language teaching classrooms, teachers of future should be exposed to effective use of technology and they should also practice technological tools actively besides learning how to use them in their teacher education programs. Bax (2003) mentions a concept named as "normalisation" in foreign language education through technology. He states that:

"A technology has reached its fullest possible effectiveness in language education when it has arrived at the stage of 'normalisation', namely when it is used without our being consciously aware of its role as a technology, as a valuable element in the language learning process" (p.36).

Normalisation is thought to be desirable. However, teachers are not the only factor to reach normalisation stage of technology use in teaching foreign languages. Social, cultural, economic and other factors are effective during this process. Nevertheless, it is known that:

"Normalisation will always occur (inevitability).

Normalisation occurs to the same degree with each technology (degree).

Normalisation follows the same steps for each technology (progression).

It is desirable that normalisation should occur (desirability)" (Bax, 2012, p.42).

Current literature indicates that English teachers graduate from their departments without required knowledge of the technology and its use for language teaching even if there are various ICTs that can be facilitated in language teaching practices (Hubbard, 2008). Therefore, English teachers need to improve their technological abilities and knowledge through formal and self-directed professional development activities during their in-service years. Mann (2005) mentions the basic features of language teacher professional development and he asserts that language teacher professional development:

- "is a bottom–up process and as such can be contrasted with top–down staff development programmes;
- values the insider view rather than the outsider view;
- is independent of the organisation but often functioning more successfully with its support and recognition;
- is a continuing process of becoming and can never be finished;
- is a process of articulating an inner world of conscious choices made in response to the outer world of the teaching context;
- is wider than professional development and includes personal, moral and value dimensions;
- can be encouraged and integrated in both training and education programmes." (p.105)

Unfortunately, most of the teacher professional development practices take base "one size fits all" approach by disregarding multiple teaching and learning contexts (Koehler &Mishra, 2009). However, contextual factors such as where teachers lived, in which context they taught or how teachers learned were crucially important for effective professional development practices through ICT (Anwaruddin, 2016).

Seferoglu and Korkmazgil (2013) suggested that teacher directed professional development practices which were suitable to teachers' own professional needs and

special contexts should be suggested and planned for ongoing teacher professional development. Song and Hill (2007) introduced a framework to better understand self-directed learning in online contexts. There were various conceptual frameworks related to learning autonomously. However, most of them did not pay attention to contextual factors. They were more suitable to face to face learning environments. Online learning in a self-directed way was missing in these frameworks.
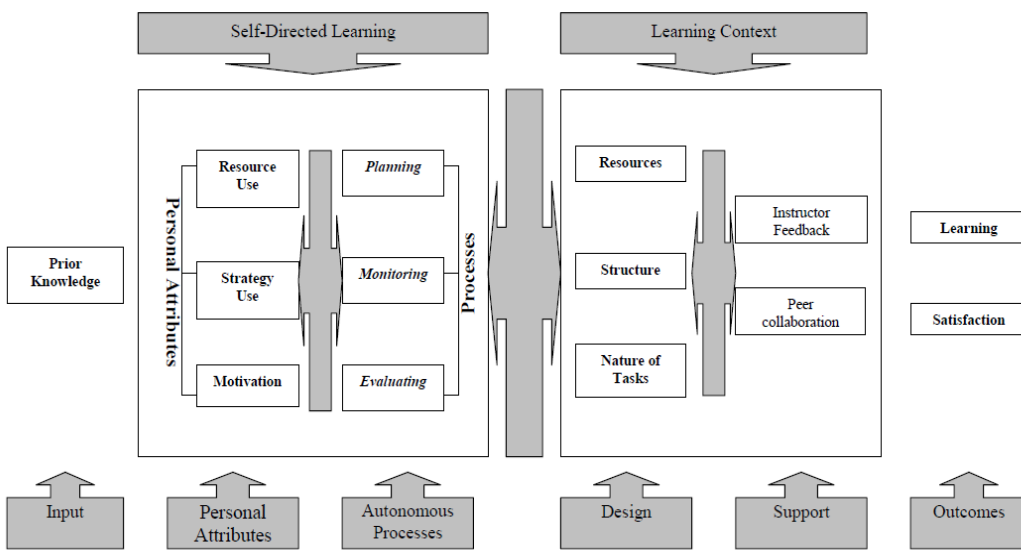
Figure 4: Self-directed learning in online contexts (Song and Hill, 2007).

As different from others, the model (Figure 4) incorporated environmental factors in self-directed learning besides personal factors and process of learning. The context that we learned was crucially important because there was not just one context. Each context had different opportunities and challenges. Therefore, contextual factors should not be disregarded. In addition, personal factors and learning process affected each other in this model.

2.6 Studies on Professional Development of English Teachers through ICT

Literature related to English teachers' use of ICT for professional development indicated that English teachers used ICT resources for professional development purposes. They facilitated the Internet to great extent. In addition, they used various ICT resources to improve themselves professionally.

2.6.1 Information and Communication Technologies used by English teachers for professional development

Literature indicates that English teachers also use various technologies to develop themselves professionally. In a study, Meskill et. al. (2006) studied technology use of teachers of English language in U.S. The study compared the results of the survey which was conducted at in 1997 and 2003 about ESOL teachers use of technology for teaching English. As information and communication technologies improved vastly, the study aimed to look at the differences at teachers' use of technology between these years. In 1997, a survey was applied to ESOL teachers in U.S. to investigate teachers' use of technology for teaching and learning purposes. A similar survey was filled by 847 ESOL teachers in 2003. And, results were compared whether the improvements in ICT affected teachers' use of technology. Results showed that even if there were improvements in ICT, teachers use of these technologies in various ways did not increase when compared to the results of the survey in 1997. Teachers used these technologies but they did not make creative changes in their teaching practices. Teachers reported that they did not have much time and resources for using technology effectively. In addition, they experienced the Internet connection problems and reluctance to use technology.

The study of Flanagan and Shoffner (2013) was about secondary school English teachers' motives and methods of using different technologies for their teaching practices. Research was designed in a qualitative way. Two teachers were participated to the study. One of the teachers were experienced and the other was a novice teacher. Data were collected through observations and interviews. The study took one semester period. Findings suggested that both teachers benefited from various technologies for their teaching practices and they

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took advantage from these technologies. However, teachers' attitudes towards technology use for teaching practices showed differences. While novice teacher though technologies as an indispensable part of their teaching, experienced teacher attributed a secondary role in teaching practices. In addition, teachers indicated that advantages of technological tools outweighed challenges of them by compensating challenges with students' increased motivation and time saving properties of technologies.

In addition, the study of Webster and Son (2015) dealt with university level English teachers' use of technology for professional development purposes. Data were collected through questionnaire, semi-structured interviews and observations. Results suggested that teachers did what worked rather than they believed. They followed the same teaching methods that they saw from their instructors. However, it was necessary for teachers to realize the realities of the current technological world. They needed to reassess their practices and current situation in planning.

Moreover, the qualitative study of Sharp (2012) dealt with foreign language teachers' use of technology in their teachings and how they developed their technology competence. It was stated that communities were effective in teachers' decisions and abilities to use technology in their teaching practices. Teachers who were reluctant to use technology changed their minds and started to facilitate technology with the influence of communities that they were part of.

There are many efforts to integrate technology in foreign language teaching and learning facilities. However, besides other efforts, what teachers think about the use of ICT, their beliefs and competences are crucially important. The study of Malinina (2015) investigated foreign language teachers' attitudes and beliefs towards the use of ICTs. The study enlightened that teachers believed that ICT improved teaching and learning activities. However, some negative attitudes towards ICT were also mentioned such as lack of time to use them or inappropriate materials found on the Internet. Nevertheless, general opinion of teachers was that ICT had more advantages than disadvantages when used appropriately.

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Sysoyev and Evstigneev (2015) studied English instructors' ICT competence through an online professional development program. Results suggested that it was possible to increase teachers' ICT competence in a short time with an online professional development program. The study of Jonson (2016) dealt with English teachers' incorporation of ICT resources to teach writing. The study was designed in a qualitative way. Twelve English teachers working in a public school participated a professional development program. The school did not have a good infrastructure supporting ICT use. There was just a one computer lab and teachers needed more support to use technology in their teaching practices. Program introduced practical and conceptual digital tools that could be facilitated in improving students writing skills. From 12 teachers, case of 3 teachers were selected and investigated in debt. Multiple data collection was performed through video recordings, reflections of teachers, students' works and rubrics. Data were transcribed for analysis. The study concluded that teachers benefited from professional development program and they incorporated digital tools into their teaching practices. In addition, it was stated that teachers found easier to use practical digital tools compared to conceptual tools.

Hısmanoglu (2012) also investigated pre- service English teachers' attitudes towards the use of information and communication technologies in their future teaching practices. Participants of the study were 85 pre- service 4th grade English teachers studying at distance education higher education. Data were collected through a Likert type questionnaire which was given to student teachers online. Findings suggested that prospective English teachers were negative towards the use of ICT in their future teaching practices. They viewed technologies as a time consuming, complex and hard to manage. This study indicated that effective professional development activities were necessary to integrate technology and to benefit from it for teaching and learning facilities.

2.6.2 Online professional development programs used by English teachers

Online professional development programs have different properties compared to face to face ones. Therefore, online professional development programs used by English teachers

should be investigated. A study conducted by Wang et. al. (2010) investigated the effect of e-training model which was called as PRC (Practice, Reflection, and Collaboration) on Chinese English teachers. The study was performed in a cyber face to face learning environment with 8 teachers in a qualitative manner. The learning environment had both synchronous and asynchronous learning and teaching opportunities by providing users different facilities such as discussion forms, videos, online teaching sessions etc. However, within the scope of the study, synchronous environment of the platform was mainly investigated. The main aim of the study was to train teachers to manage cyber face synchronous teaching in an authentic way. Teachers learned and practiced teaching by actively engaging with the platform. Training was performed for 12 weeks (4 week for platform training and 8 weeks for online teaching practices). Data were collected through surveys which was given at the beginning of the training and at the end of the training, reflections, discussion form reports and self-reflection journals. The result of the study indicated that training teachers in an e learning environment was important to support teachers to use e-learning environment fruitfully and successfully because e-learning environment had different requirements compared to face to face teaching. And, teachers' actively engaging with this environment was helpful for their professional development.

In addition, Rodesiler (2014) conducted a study to explore secondary level English teachers' professional development activities in teacher generated online platforms (blogs, social media platforms etc.). Study was designed in a qualitative manner with the participation of 5 English teachers working at secondary levels. Criterion related sampling was used for the selection of participant teachers. Teacher generated products were collected and content was analyzed. In addition, semi-structured interviews were performed with teachers for triangulation. Findings suggested that teacher generated online environments had time flexibility for teachers. In addition, teachers could communicate with other teachers to develop their learning and teaching practices professionally. Participant teachers took advantage of joining teacher generated online platforms.

Osipov et. al. (2015) also mentioned an online language learning platform which was called as "i2istudy". Platform presented its users ready materials to teach and learn languages. Users registered to the platform by selecting their native language to teach others and a language that they wanted to learn. While they learned a language from a native speaker of that language, they taught their native language to other people. Study mentioned that platform was effective in improving communication and speaking abilities of its users in a foreign language. It was suggested that these kinds of platforms be encouraged to stimulate learning other languages in an economic and easy accessible way.

Moreover, Hoesein (2015) investigated a professional development platform which aimed to support elementary level foreign language teachers' teaching and learning practices. Platform included the use of mobile technologies and online support for teachers. At the end of 2 years of practice outcomes, study concluded that program improved classroom practices of the participant teachers. Students' involvement was increased. Teachers developed themselves professionally and this affected their teaching practices positively. Teachers also learned from other teachers in the platform. Overall, teachers and students benefited from professional development program platform.

Anwaruddin (2016) also conducted a study to analyze the discourse of a professional development program called English in Action (EIA) in Bangladesh. The program used information and communication technologies to deliver professional development activities to English teachers. The program was applied for years and they claimed that it was successful in supporting teachers' professional development. The slogan of the program was "trainer in your packet" referring to mobile devices that were easy to carry such as mobile phones or I pod. Relevant texts taken form EIA project were used for the analyses. Discourse was analyzed under the category of knowledge and skills, self-understanding and context (ecological viewpoint). The study revealed that the program mostly focused on knowledge and skill training and, self-understanding without giving much importance to context of teaching. The study suggested that ecological factors such

as where the teachers lived, in which context teachers taught or how teachers learned were crucially important for effective teacher professional development activities.

2.6.3 English teachers' use of computers as a professional development tool

Computers are one of the most widespread ICT tools which are facilitated as a professional development tool and there are many studies conducted to investigate their effect on teachers' professional development practices. Son et. al. (2011) investigated Indonesian in-service English teachers' use of computers for professional and teaching purposes. The study locked at both teachers' attitudes and their actual practices of computers for professional purposes. Participants were 73 in-service English teachers working at schools and universities of Indonesia. The participant teachers filled a survey and data were analyzed statistically. Results showed that teachers' attitudes towards computers were highly positive. However, their practices of computers for professional purposes were very restricted compared to their attitudes. This study indicated that computer competency of teachers could not be measured by only looking at their attitudes. It was suggested that more opportunities should be provided to teachers for improving their computer competency and abilities.

In addition, Chylinsky and Hanewald (2009) conducted an action study on the effectiveness of an online CALL platform for English teachers' professional development of teaching in online environments. Setting of the study was a private language teaching organization. As the demand for teaching English online increased, a need for teachers' professional development to expand their abilities to use CALL environment also increased. A platform was formed and 6 teachers participated to the action study voluntarily. The duration of the study was 6 months. At the end of the training, results indicated that platform was effective in developing teachers professionally in the area of CALL. The study also showed that action research was necessary and effective in supporting teachers professionally.

Moreover, Tai (2015) studied the effect of a CALL workshop on elementary English teachers working in Taiwan. The purpose of the workshop was to improve teachers'

CALL competence to improve their teaching practices with the help of CALL. 24 elementary English teachers participated to the study voluntarily. Workshop lasted for 15 hours. Both qualitative and quantitative data were collected through observations, interviews, reflections, and survey. Individual and focus group interviews and reflections were gathered to enlighten observations. findings of the study suggested that CALL workshop was effective in developing teachers CALL competence, indicating that professional development activities were effective in developing teachers' ICT competence. After the workshop, teachers felt more confident in using ICTs in their teaching practices.

Kessler (2006) also studied TESOL master's degree teachers' use of computer assisted language teaching practices and attitudes. Participants were 240 TESOL teachers in U.S. Both quantitative and qualitative data were collected through a survey, focus group interviews and individual interviews. The results illustrated that teachers felt a need for CALL training. Teachers used formal and informal opportunities to compensate this deficit.

2.6.4 English teachers' use of e-portfolio for professional development

Teacher e-portfolio is a tool that enables teachers to develop themselves professionally and to increase their technology skills (Bala et. al., 2012). Teachers collect their works at the portfolio and they can organize and get feedback from other teachers. E-portfolio generally includes "biodata, teaching philosophy, teaching resources, current timetable, resume (CV), bookmarks or websites for learning and teaching English, hobbies and interests and contact" (Bala et. al., 2012). Kaliban and Khan (2011) studied pre-service English teachers' use of e-portfolio in a qualitative study. The study aimed to investigate the effectiveness of e-portfolio in future English teachers' teaching and learning practices, and challenges and benefits related to it. Participants were 55 pre-service English teachers. The study lasted for 14 weeks. An online community was formed through google group for participants' e-portfolio activities. Data were collected through questionnaire, discussion forms and journals written every week. Result of the study showed that e-

portfolio was an effective tool for teachers' evaluating and monitoring their own learning processes. However, the study also noted some disadvantages of e-portfolio such as the Internet connection problems, time constraints and some ethical issues.

In addition, the study of Bezukladnikov and Kruze (2015) investigated the effectiveness of an online professional portfolio on prospective English teachers. Results stressed that electronic portfolio had positive effects on participant teacher candidates. It was suggested that electronic portfolio improved prospective teachers' reflection abilities and word knowledge. They became more autonomous and they could collaborate with their peers and instructors. Moreover, the study of Bala et. al. (2012) indicated that e-portfolios were effective tools in developing teachers professionally and increasing teachers' technology abilities by promoting ongoing life-long learning.

2.6.5 English teachers' use of the Internet for professional development

The Internet gives English teachers opportunity to develop themselves professionally with time and place flexibility. Shin and Son (2007) investigated Korean English teachers' use of the Internet for their teaching practices. The purpose of the study was to study how English teachers used the Internet, what resources they chose and what challenges they faced. Participants of the study were 101 English teachers working at secondary schools in Korean. Data were collected through a questionnaire which consisted of three sections: demographic information, 5 point Likert survey and a few open-ended questions. Quantitative and qualitative data analysis were used for the study. The results suggested that personal interest of teachers towards the use of the Internet, teachers' technology competence and technology infrastructure of the school were effective in teachers use of technology for their teaching practices. In addition, it was found out that most of the teachers used the Internet for lesson preparation before the lesson more than actual teaching process.

Alhabahba and Mahfoodh (2016) studied English teachers use of the Internet resources for their self-directed professional developments. Participants were 174 English teachers who were a member of TESOL Arab. A survey was used for data collection. A statistical

software for structural equation modeling named SmartPLS was managed for the analysis of quantitative data. Findings indicated that participant teachers benefited from the Internet for professional development purposes. They used the Internet to collaborate with others, to prepare lessons and to develop themselves professionally. A gender difference with respect to using the Internet sources was also found. While male teachers' decisions to use the Internet to develop professionally was affected from their classroom practices, this was not the case for female teachers.

2.6.6 English teachers' use of social media for professional development

English teachers also use social media platforms for professional development aims. Benko et. al. (2016) studied one of the social media platforms called twitter to improve prospective English teachers' reflection abilities and collaboration in methodology course. Twitter provides a sense of belongingness among its users in an authentic way by creating an online community. Study results indicated that twitter environment helped teacher candidates to improve their reflection abilities by promoting an authentic audience.

In addition, Khan (2015) conducted a study to investigate English teachers' use of blog as a teacher professional development tool working in Mumbai. Participants of this case study were 32 English teachers. Criterion sampling was used for the selection of participants. Participants were working at English medium private schools in Mumbai at primary and secondary levels. Dara were collected through workshops, questionnaires, interviews and discussion forums. The results indicated that teachers had difficulty in sparing time to use blog efficiently. However, it was also suggested that teachers benefited from blogging professionally and they were positive towards using blogging as a professional development tool.

CHAPTER 3

METHODOLOGY

3.1 Introduction

Within the scope of this chapter, the design of the study, participants and setting, data collection tools and procedures, data analysis and ethical considerations will be presented respectively.

3.2 Design of the Study

This study was designed to answer the following research questions:

1. To what extent do EFL teachers make use of information and communication technology (ICT) resources, especially the Internet, for:

      a. overall professional development?

      b. practices at classroom level?

      c. collaboration with others?

2. Which information and communication technology (ICT) resources do EFL teachers use for self-directed professional development (SDPD)?

3. How do EFL teachers use ICT resources for self-directed professional development (SDPD)?

4. What are the factors that promote/ inhibit EFL teachers' use of information and communication technology (ICT) for self-directed professional development (SDPD)?

5. What are EFL teachers' suggestions to use information and communication technology (ICT) resources for professional development?

Mixed method was preferred as a research design of the study and sequential explanatory design proposed by Creswell (2013) was used in the study (Figure 5). Mixed method is mostly preferred when quantitative data weight more than qualitative data. Mixed method research is seen as one of the three research methods whose popularity increased rapidly in the last decade (Cameron, 2011). Creswell (2013) states that mixed method strengthens both qualitative and quantitative method. Thus, more indebt understanding can be reduced by using both instead of using one of them. However, researchers need to be careful in conducting mixed method research. Multiple data collection is required, both qualitative and quantitative data analysis need to be performed and triangulation is necessary. Therefore, researchers need to know the procedures of both qualitative and quantitative research design and additionally, merge the results of both research design consistently and meaningfully. Creswell and Clark (2007) define mixed method research as following:

> *"Mixed methods research is a research design with philosophical assumptions as well as methods of inquiry. As a methodology, it involves philosophical assumptions that guide the direction of the collection and analysis of data and the mixture of qualitative and quantitative data in a single study or series of studies. Its central premise is that the use of quantitative and qualitative approaches in combination." (p.5)

When designing a mixed method research, four important aspects, "timing, weighting, mixing, theorizing" (Table 1), need to be considered (Creswell, 2013). Timing is about data collection order. Whether qualitative or quantitative data will be collected separately at different times or they will be collected simultaneously needs to be decided according to the purpose of the researcher. Within the scope of the study, quantitative data were collected first and qualitative data were collected later. Second aspect that needs to be considered is weighting. As both qualitative and quantitative data are collected, the researcher needs to decide the priority of data collected according to research objectives. The weight can be equal or one of the data can be more prioritized. In this study,

quantitative data were more emphasized with respect to qualitative data. The third aspect is mixing. It is about the mixing of both data at which stage. It can be performed at "data collection, data analysis or interpretation" stages. In mixing the data, "connected, integrating and embedding" mixing can be handled. This study mixed the data in a connected way. The analysis of the quantitative data was used in the selection of participants for the qualitative data collection. Quantitative and qualitative data of the study were collected at different times and at the results section of the thesis, their analysis was given separately with respect to research questions.

At the conclusion and discussion section, the results of the quantitative and qualitative study were connected to each other and they were interpreted interrelatedly. The last aspect is theorizing. It is about if there is a theoretical framework behind the study in an explicitly defined way in the design the study. This study explicitly mentioned the theoretical background of the study at the literature review part of the study.

Table 1: Aspects to consider in the design of the mixed method research

Timing	Weighting	Mixing	Theorizing
No Sequence Concurrent	Equal	Integrating	Explicit
Sequential-Qualitative First	Qualitative	Connecting	Implicit
Sequential-Qualitative First	Qualitative	Embedding	

Sequential explanatory design of Creswell (2013) was chosen for the study (Figure 5). It is mostly preferred when quantitative data weight more than qualitative data. In this design, quantitative data were collected and analyzed. Later, qualitative data were collected and analyzed. Data were collected and analyzed in a connected way.

Figure 5: Sequential explanatory design of mixed method research (Creswell,2013).

The results of the quantitative data shaped the qualitative data collection by mixing the results. Both data were collected at different times and there needed to be two data collection periods. The design of this mixed method study was shown at Table 2.

Table 2: The design of the mixed method study

Research Questions	Design	Data Collection Tool	Data Analysis Method
Question 1	Quantitative	Questionnaire	Statistical Analysis
Question 2	Quantitative+ Qualitative	Questionnaire+ Interviews	Qualitative Coding
Question 3	Qualitative	Interviews	Qualitative Coding
Question 4	Quantitative+ Qualitative	Questionnaire+ Interviews	Statistical Analysis+ Qualitative Coding
Question 5	Quantitative+ Qualitative	Questionnaire+ Interviews	Qualitative Coding

Questionnaire of the study included both qualitative and qualitative data collection. Likert type items of the questionnaire were analyzed quantitatively. In addition, open-ended questions of the questionnaire were analyzed qualitatively. Moreover, interviews were analyzed qualitatively.

3.3 Participants and Setting

For the selection of participants, sequential mixed method sampling was used. It is the most commonly preferred sampling in mixed methods (Teddlie and Yu, 2007). In this

sampling, information taken from the first sample is used for the selection of second sample (Kempler et. al., 2003). Participants of the survey were selected through snowball sampling as one of the non-probability sampling because of the difficulty of reaching English teachers. 184 English teachers working at primary, secondary, high school and university levels in Turkey filled in the online questionnaire prepared via google forms. With the widespread use of computers and internet access in todays' digital age, researchers have started facilitating online surveys to collect data in an easier way (Dörnyei and Taguchi, 2009).

Participants of the questionnaire were 184 English teachers working in Turkey. 38 of them were male and 146 of them were female (Table 3). Participants were from different age ranges. 31 of the participants were between the ages of 21-24. Most of the participants were between the ages of 25-34 and they formed 66.8 percent of the study sample. Between the ages of 35-44, there were 24 participants. In addition, there were five participants between the ages of 45-54 and one participant between the ages of 55+.

Table 3 :Gender and age of questionnaire participants

Gender	F	%
Male	38	20.7
Female	146	79.3
Total	*184*	*100*
Age	**F**	**%**
21-24	31	16.8
25-34	123	66.8
35-44	24	13
45-54	5	2.7
55+	1	.5
Total	184	100

With respect to the experiences of the participants (Table 4) 44 of the participant teachers had 0-2, 61 of them had 3-5, 42 of them 6-10, 17 of them had 11-15 and 20 of them had more than 16 years of teaching experience. Participants worked at four different levels. 35 teachers worked at primary level, 75 of them worked at secondary level, 38 of them worked at high school level and 36 of them worked at university level.

Table 4: Years of experience and school levels of questionnaire participants

Years of Experience	F	%
0-2	44	23.9
3-5	61	33.2
6-10	42	22.8
11-15	17	9.2
16+	20	10.9
Total	184	100
Level of school	**F**	**%**
Primary level (1-4)	35	19
Secondary level (4-8)	75	40.8
High School level (9-12)	38	20.7
University level	36	19.6
Total	184	100

Participants' education levels were also taken through demographic questions of the questionnaire. More than half of the participant teachers (76 %) graduated from bachelor's degree. In addition, 17.9 percent of them had master's degree and 5.4 percent of the participants had doctoral degree (Figure 6).
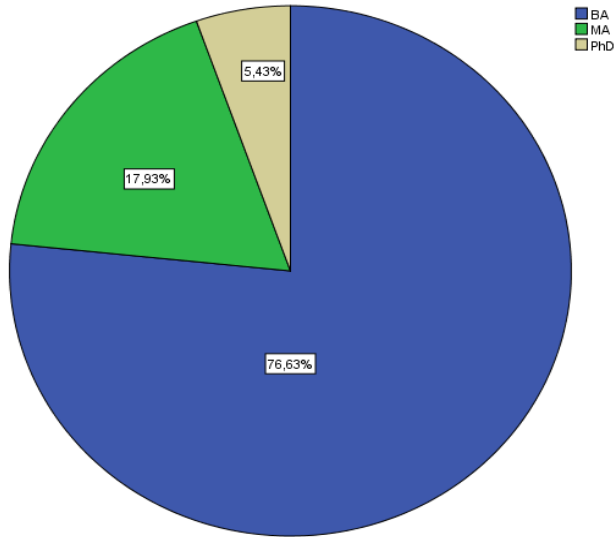
Figure 6: Participants' education levels

Participants for the interview were selected among the voluntary participants of the questionnaire. Out of 184 participants, 49 of them gave their mail addresses to be in contact for the interview. Twelve teachers who worked at primary, secondary, high school and university levels (Table 5) were interviewed to triangulate the data of the questionnaire and to get more in debt information.

Table 5: Details of the Interview Participants

Parameters	N
Primary Level	3
Secondary Level	3
High School Level	3
University Level	3
Male	3
Female	9
Selection Criteria	Purposeful

Participants for the semi-structured interviews were selected through purposive sampling. It is the selection of participants on a specific criterion rather than selecting randomly (Teddlie &Tashakkori, 2003). Selection criteria included teachers' internet usage frequency and levels of teaching. Participants who were volunteer to join the interviews were grouped into three categories as high, moderate and low internet users. And, three teachers from each range were selected from the voluntary teacher participants for the telephone interviews.

3.4 Data Collection Instruments

Data were collected through a questionnaire and interview schedules. Questionnaires are one of the most commonly used data collection method in second language education because of their easiness to collect large amounts of data in a short time (Dörnyei and Taguchi, 2009). Questionnaires can be defined as written instruments that present respondents' options to choose or write their thoughts on a certain issue (Brown, 2001). Most generally, questionnaires include three types of data named as "factual, behavioral, and attitudinal" (Dörnyei and Taguchi, 2009). Factual questions are demographic information such as gender, age, school etc. related to the participants. They are important in interpreting the study results. Behavioral questions are about participants' experiences with respect to the research area of interest. And lastly, attitudinal questions aim to figure out participants' thoughts. Questions that target to identify participants' ideas, beliefs or attitudes are asked to answer research questions.

Using questionnaires is advantageous as less time, effort and resource are needed compared to other data collection methods (Dörnyei and Taguchi, 2009). However, some important aspects needs be thought before deciding to use a questionnaire. Completing the questionnaire is suggested not to be more than 30 minutes and it is suggested to be anonymous (Dörnyei and Taguchi, 2009). The completion duration of the questionnaire by the participants was approximately estimated as 15-20 minutes. And, respondents filled the questionnaire anonymously.

After quantitative data collection and analysis, semi-structured interviews were realized with the participants who were voluntary to join the interviews. The aim of conducting interviews was to explore teachers' use of ICT for their professional developments in depth and to triangulate the data gathered form the questionnaire. Three teachers from each level with various internet usage frequencies were interviewed via telephone interviews and their voice recordings were taken with the permission of participants for the following data analysis.

3.4.1 Questionnaire

The study used the questionnaire of "Online Professional Development Practices" which was adapted from the study of Alhabahba and Mahfoodh (2016) by taking necessary permissions. The questionnaire included statements that investigated teachers' use of ICT resources for self-directed professional development. Therefore, the questionnaire was thought as suitable for the purpose of the study to answer the research questions. A few demographic questions were added to get more information about the participants. In addition, open ended questions were added at the end of the instrument to get more in debt data. Dörnyei and Taguchi (2009) state that adding a few open-ended questions placed at the end of the questionnaire might be effective to offer participants opportunity to express themselves better. Questionnaire was given to five experts to fill and give feedback for the face validity of the instrument. In the light of the feedback taken from experts, some minor modifications such as changing the ambiguous words or paraphrasing the phrase were made on the questionnaire to make it more clear and understandable.

The questionnaire included six parts (Table 6). The first part of the questionnaire consisted of 10 multiple choice questions. Demographic information about the participants were taken such as gender, education level, years of experience, their use of technology etc. Second, third, fourth and fifth parts of the questionnaire were in the form of 4 point Likert scale ranging from strongly agree to strongly disagree. Second part included nine statements related to teachers' motives to seek online resources. Third part consisted of 10 statements and they were about the Internet's contribution to teachers' professional

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development. Fourth part included eight statements investigating the contribution of the Internet to teachers' practices at classroom level. And, fifth part dealt with teachers' use of the Internet to communicate with others and there were 12 statements. Lastly, sixth part included five open-ended questions. This part aimed to get more information about teachers' use of information and communication technologies (ICTs) to develop themselves professionally, the challenges they faced and suggestions of participant teachers.

Table 6: Parts of the questionnaire

Parts	Purpose	Question Type	Number of Items
Part I	To get demographic information of the participants	Multiple Choice	10
Part II	To investigate teachers' motives to seek online resources	4 Point Likert Item	9
Part III	To investigate the Internet's contribution to teachers' professional development	4 Point Likert Item	10
Part IV	To investigate the contribution of the Internet to teachers' practices at classroom level	4 Point Likert Item	8
Part V	To investigate teachers' use of the Internet to communicate with others	4 Point Likert Item	12
Part VI	To investigate teachers' use of ICT, the challenges they face and suggestions of teachers	Open-ended	5

Cronbach's Alpha reliability was calculated to check internal consistency of the instrument. General Cronbach Alpha value of the questionnaire was .953 as shown at the Table 7. Cronbach Alpha value of the section of "Teachers' Motives to Seek Online

Teaching Resources" was .824; "The Importance of the Internet's Contribution to the Overall Professional Development" was .909; "English Language Teachers' Practices of the Internet at Classroom Level" was .873; and lastly, "Teachers' Practices of the Internet to Collaborate with Others" was .947.

Table 7: Cronbach Alpha Values of Questionnaire Sections

Components of "Online Professional Development Practices"	Number of items	Cronbach Alpha Values
Teachers' Motives to Seek Online Teaching Resources	9	.824
The Importance of the Internet's Contribution to the Overall Professional Development	10	.909
English Language Teachers' Practices of the Internet at Classroom Level	8	.873
Teachers' Practices of the Internet to Collaborate with Others	12	.947
General Cronbach Alpha Value of the Questionnaire	39	.959

3.4.2 Interview Schedule

Semi- structured interviews were realized after quantitative data collection and analysis with 12 volunteered teachers who participated to the questionnaire. Interview questions were prepared to learn more about teachers' use of ICT for their self-directed professional development practices. Interview questions were prepared as parallel to the questionnaire questions and opinions of two experts on technology and English language teaching were taken during the preparation of questions.

In addition, piloting was performed with five voluntary teachers before the actual interview process and their opinions were taken whether the questions were clear and understandable. In the light of the piloting and suggestions of teachers who participated

to the piloting process, some minor modifications were done on the interview questions. As a result of the modifications, 10 questions were decided to be asked to participants during the interviews (see appendix B). In addition to the questions related to their experiences and attitudes towards ICT, suggestions of teachers were also taken from teachers with respect to English teachers' use of ICT to develop themselves professionally. Questions were prepared in English and sent to teachers to make them ready for the interview before conducting the interviews. Teachers were asked whether they wanted to conduct the interview in English or Turkish. Their preferences were taken into consideration during the interview. For the internal validity of the interview analysis, peer check was conducted. One expert in the field checked the analyzed data, codes, and themes for the appropriateness. For the external validity of the study, triangulation of the interview data with open-ended questions' data was performed. Analyses of them were compared to get a more comprehensible understanding.

3.5 Data Collection Procedure

Both quantitative and qualitative data were collected through a questionnaire and semi-structured interviews. After data collection and analysis of the quantitative data via the questionnaire "Online Professional Development Practices", participants for the semi-structured interviews were selected and telephone interviews were realized (Figure 7).

Quantitative Data Collection (January 2017)	Quantitative Data Analysis (February 2017)	Qualitative Data Collection (March 2017)
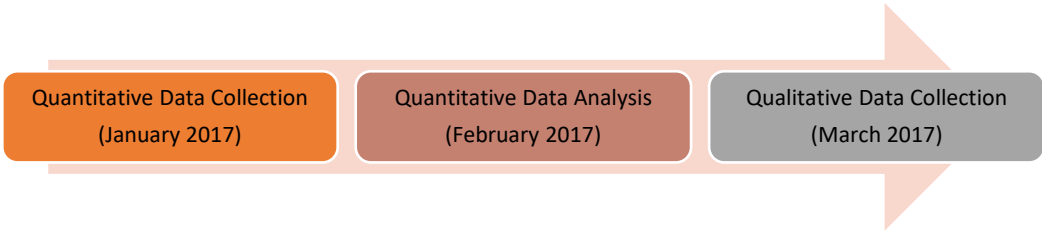
Figure 7: Data Collection Procedure

Questionnaire of the study was prepared through google forms and administered to participant teachers. Participants were reached via online social media groups and mailing. Data of the questionnaire were collected in January 2017 and analyzed in February 2017. Out of 184 participant teachers who completed the questionnaire, 49 of them were

volunteered to participate the semi- structured interview and gave their e-mail addresses. Teachers for the interviews were selected among the teachers who volunteered to participate to the interview (Table 8). Three teachers with different frequencies of the Internet use (high, moderate and low) from each level (primary, secondary, high school and university) were selected for the interviews. Interviews were realized in March 2017 via telephone. Approximate interview duration was 15 minutes. Teachers were informed for the interview beforehand and interview questions which were prepared in English were sent to teachers before the interview to make interviewers see the questions and get an overall idea of the interview process. Interviews were realized either in English or Turkish with respect to teachers' preferences. Voice recordings of the interviews were taken for the later data analysis with the permission of participants.

Table 8: Semi-structured Interview Process

Participant	Gender	Level	Date	Language of the Interview
Participant 1	Female	Primary	08.03.2017	English
Participant 2	Female	Primary	15. 03.2017	English
Participant 3	Female	Primary	17. 03.2017	English
Participant 4	Female	Secondary	09. 03.2017	Turkish
Participant 5	Female	Secondary	14. 03.2017	Turkish
Participant 6	Male	Secondary	08. 03.2017	Turkish
Participant 7	Female	High School	16. 03.2017	Turkish
Participant 8	Male	High School	10. 03.2017	English
Participant 9	Male	High School	15. 03.2017	Turkish
Participant 10	Female	University	11. 03.2017	English
Participant 11	Female	University	13. 03.2017	Turkish
Participant 12	Female	University	14. 03.2017	Turkish

3. 6 Data Analysis

In this explanatory mixed method research design study, quantitative and qualitative data were analyzed separately. Analysis of the quantitative data was used in the planning of the qualitative data collection. Participants for the qualitative part of the study were selected among the participants who participated to the quantitative part of the study (Creswell, 2013). Quantitative data were collected through a questionnaire which included Likert type questions. Qualitative data were collected through the open- ended questions which were added to the end of the questionnaire and semi-structured interviews.

Quantitative data were analyzed through a statistical analysis package (SPSS 18.0) used in social sciences. There were four sections with Likert type statements. Their scorings range from one to four. Scorings of the statements were: Strongly agree=4, Agree=3, Disagree=2, Strongly Disagree=1. Quantitative data analysis involves converting the data to numerical representations for statistical analysis to explain the area of research (Babbie, 2010). Descriptive and frequency analysis were conducted to analyze the quantitative data. These analyses included means, standard deviations and percentiles.

Qualitative data (open ended questions and semi-structured interviews) of the study were analyzed through the six steps (Figure 8) defined by Creswell (2013) via MAXQDA. Firstly, interviews were transcribed and organized for analysis. Interviews were realized either in English or Turkish with respect to participants' preferences as it could be seen at Table 7. Secondly, data were read to get an overall impression about the transcribed information. Firstly, open-ended questions' answers were read to get an overall idea. Later, transcriptions of the interviews were read. Third step was coding of the data. Coding means writing representative words to sentence segments (Creswell, 2013). After reading the whole data, segments were selected and read carefully for coding. A list of codes was noted from the open-ended questions' answers' and transcribed data. Some codes were recoded after reading both data and compare with each other. At the fourth step, codes were used to generate themes. From a list of codes a small number of themes were written.

Themes of the open-ended questions and interview transcriptions were consistent with each other. Moreover, themes were supported by multiple codes and quotations. At the next step, data were represented in a qualitative manner. At the results section, analysis of the open-ended questions and interview results were given separately. And, at the conclusion and discussion part, both data were interpreted together to get an overall idea of the results.
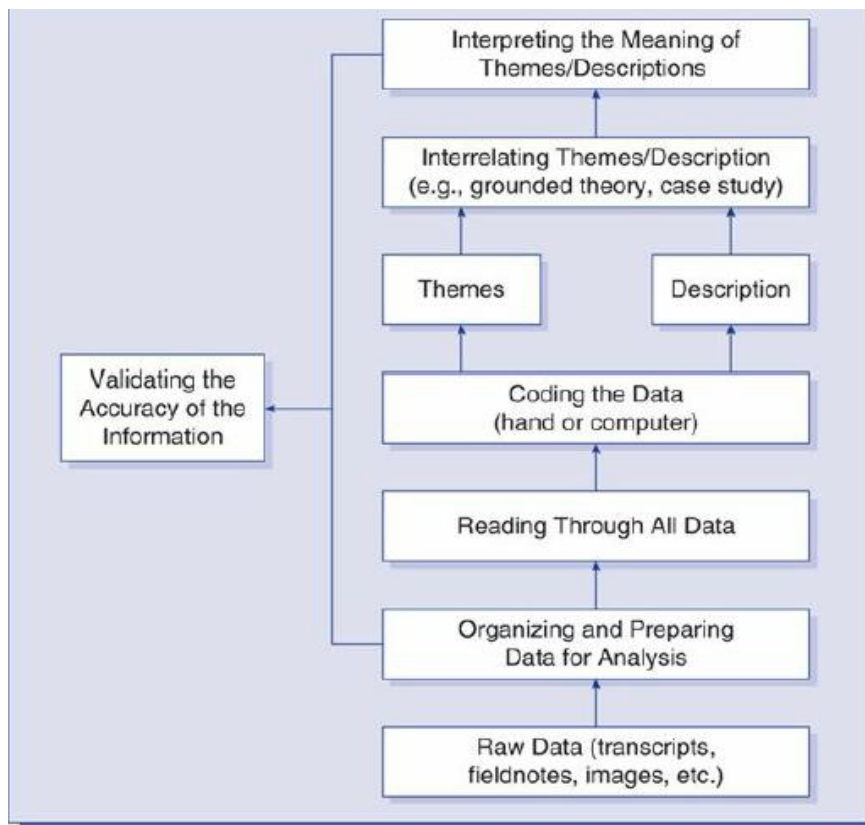
Figure 8: Qualitative data analysis steps (Creswell, 2013).

3.7 Ethical Considerations

Study was conducted by taking ethical issues into consideration. Before conducting the study, necessary permissions were taken from "Institutional Review Board". After the approval of the Review Board, participants of the study were informed about the study

purposes, procedures and how the results of the study would be used later. Privacy and confidentiality of the participant teachers were ensured. All personal data were presented anonymously. As both quantitative and qualitative data were collected separately, participants of the questionnaire were asked whether they would like to participate to the interviews which would be realized at the second step of the research. Voluntary participants gave their e-mail addresses to be in contact for the interviews. Participants were free to refuse to participate to the interviews even after giving their e-mail addresses. Consents of the participants were also taken for the data recordings of the telephone interviews. An explanatory e-mail was sent to voluntary participants for the interview and they were informed about the procedure and asked again whether they were still voluntary to participate to the interviews. In addition, interview questions were also sent to participants before the interview to make them ready for the interview. Participants were also free to speak in English or Turkish during the interviews. They were informed that their voices would be recorded for the following data analyses and these recordings would be kept in private.

CHAPTER 4

RESULTS

Within the scope of this chapter, results of the study are presented with respect to research questions respectively. This chapter includes questionnaire results which were implemented to 184 English teachers who were working at primary, secondary, high school and university levels in Turkey and semi-structured telephone interviews which were realized with 12 teachers (three teachers from each level). Analysis was performed both quantitatively and qualitatively to answer the research questions below:

1. To what extent do EFL teachers make use of ICT resources, especially the Internet, for:

    a. overall professional development?

    b. practices at classroom level?

    c. collaboration with others?

2. Which ICT resources do EFL teachers use for self-directed professional development (SDPD)?

3. How do EFL teachers use ICT resources for SDPD?

4. What are the factors that promote/ inhibit EFL teachers' use of ICT for SDPD?

5. What are EFL teachers' suggestions to use ICT resources for professional development?

4.1 Demographic Information of Participants based on the Questionnaire

Demographic information of participants was taken via the questionnaire. Participants were asked to answer personal questions to comment on the results better. Participants'

knowledge of the Internet, usage of the Internet in a week and ICT training experience were given below.

4.1.1 Participants' Knowledge of the Internet Usage

Participants were asked to rate their use of the Internet on the questionnaire and all the participants answered the question. According to the results, as it can be seen at Table 9, nearly all the participants (97.8 %) knew how to use the Internet.

Table 9: Participant Teachers' Knowledge of the Internet Usage

Knowledge of the Internet usage	N	%
I know how to use the Internet	180	97.8
No interest at all	1	.5
No time to use	2	1.1
Don't know how to use	1	.5
Total	184	100

Two of the participant teachers stated that they did not have time to use the Internet. In addition, one of the participants stated that he/she did not have any interest to use the Internet and another participant stated that he/she did not know how to use the Internet. As it can be understood, nearly all the participants stated that they knew how to use the Internet.

4.1.2 Participants' Usage of the Internet in a week (by hours)

Participants were asked to rate their use of the Internet in a week (by hours) and all the participants answered to the question. As it can be seen at the Figure 9, only 11.41 percent of the participants stated that they used the Internet between one and four hours in a week.
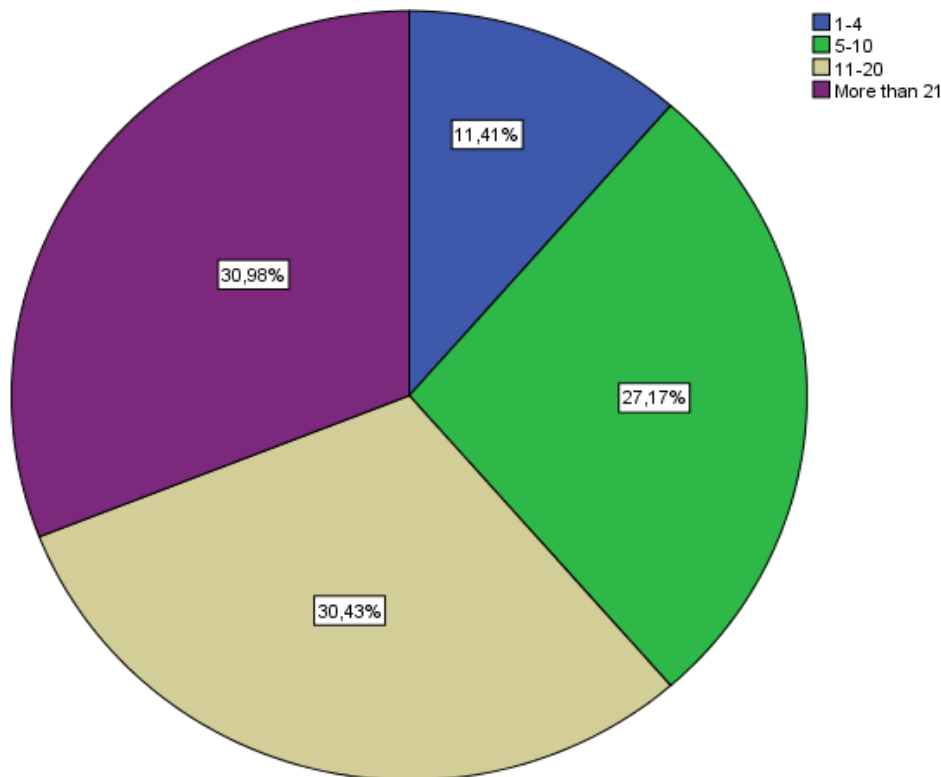
Figure 9: Participant Teachers' Usage of the Internet in a week (by hours)

The rest of the participants stated that they used the Internet more than four hours in a week. To illustrate, 21.17 percent of the participants expressed that they used the Internet between 5 and 10 hours in a week. And, 30.43 percent of the participants stated that they used the Internet between 11 and 20 hours in a week. Moreover, 30.98 percent of the participants stated that they used the Internet more than 21 hours in a week. Results indicated that most of the participant teachers were active users of the Internet.

4.1.3 Participants' Information and Communication Technology(ICT) Training Experience

Participant teachers were also asked whether they took any ICT training or not. Participants chose among the options of "did not receive", "received a hardly useful one" and "received a very useful one". Results, as can be seen at Figure 10, showed that most of the participants (36.96 %) did not receive ICT training.
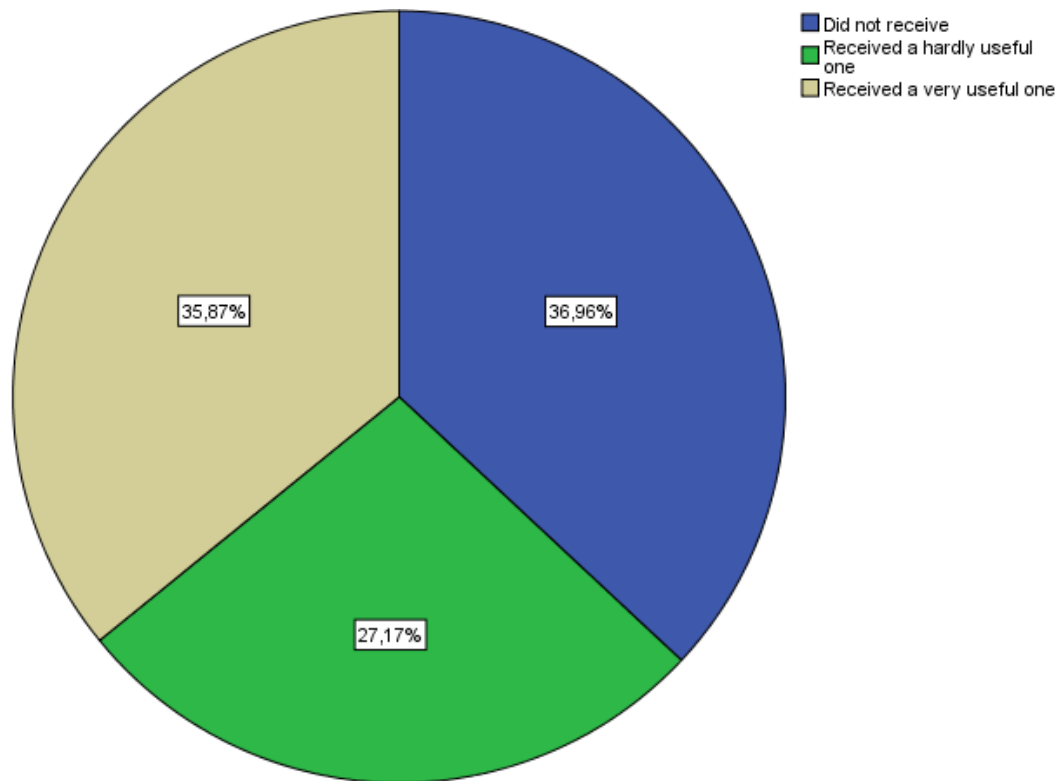
Figure 10: Participants' ICT experience

In addition, 27.17 percent of the participants stated that they received a hardly useful ICT training. However, 35.87 percent of the participants stated that they took a very useful ICT training. Their percentages seemed to be dispersed close to each other.

4.2 Research Question 1. To what extent do EFL teachers make use of ICT resources, especially the Internet, for:

    a. overall professional development?

    b. practices at classroom level?

    c. collaboration with others?

To answer this research question, participants' answers to Likert type items of the questionnaire were analyzed. Participants' use of ICT resources, especially the Internet, for overall professional development, practices at classroom level and collaboration with others were explained below.

4.2.1 EFL Teachers' use of ICT for Overall Professional Development Based on the Questionnaire

Participants teachers' responses with respect to the use of the Internet for overall professional development were taken through 10 Likert type items of the questionnaire. Participants rated their use of ICT for professional development purposes as "strongly agree, agree, disagree and strongly disagree" as it can be seen at Table 10.

Table 10: Participants' responses with respect to the Internet's contribution to the overall professional development

	The Internet's contribution to the overall professional development	Strongly Agree (%)	Agree (%)	Disagree (%)	Strongly Disagree (%)
1	I use the Internet to expand experiences for career/promotion purposes	31.5	51.1	2.7	14.7
2	I use the Internet to improve teaching skills	43.5	48.9	1.6	6
3	I use the Internet to gain motivation	41.3	47.8	1.6	9.2
4	I use the Internet to grow professionally	45.7	45.7	2.2	6.5
5	I use the Internet to learn new skills related to ELT	47.3	42.9	1.6	8.2
6	I use the Internet to share ideas/views with other teachers	40.2	38.6	4.3	16.8
7	I use the Internet to facilitate thinking abilities	36.4	49.4	1.6	12.5
8	I use the Internet to prepare oneself for innovation	40.8	48.4	1.6	9.2
9	I use the Internet to be aware of the latest developments in ELT	47.8	41.8	1.1	9.2
10	I use the Internet to remain interested in teaching	47.8	40.8	1.1	10.3
	AVARAGE PERCENTILES	42.23	45.74	1.94	10.26

Results indicated that participants benefited from the Internet for their overall professional development. Most of the participant teachers strongly agreed (42.23 %) and agreed (45.74 %) that they facilitated the Internet to develop themselves professionally. They used the Internet for a variety of different purposes. To illustrate, more than half of the participants (51.1%) agreed that they used the Internet to expand experiences for career and promotion purposes. Teachers also stated that they improved their teaching abilities via the Internet as, 48.9 percent of the participants agreed that they used the Internet to improve their teaching skills. It was also highlighted that the Internet had a psychological effect on participant teachers because 47.8 percent of the participants agreed that the Internet helped them to gain motivation.

Participant teachers were also interested in developing themselves professionally and they used the Internet for professional development purposes. Most of the participants (45.7 %) agreed that the Internet contributed them to grow professionally. Participant teachers were also aware of the importance of staying up to date and learning new skills in their careers and 47.3 percent of the teachers strongly agreed that they benefited from the Internet to learn new skills related to English Language Teaching. Use of the Internet for communication and collaboration was also widespread among participant teachers. Majority of the participants (40.2%) agreed that they used the Internet to share ideas and views with other teachers.

In addition, the Internet also contributed teachers to improve their metacognitive abilities. Participants (49.4 %) stated that they benefited from the Internet to develop their abilities of thinking. The Internet also opened ways to teachers to be more creative and innovative. Majority of the participants (48.4%) agreed that they used the Internet to prepare themselves for innovation.

Moreover, the Internet presented a huge source for teachers to follow the latest improvements in the field. They can stay up to date thanks to the Internet and be aware of the latest changes. In addition, 47.8 percent of the participants strongly agreed that they used the Internet to be aware of the latest developments in English Language Teaching.

The Internet was also helpful for teachers to keep their teaching interest dynamic. Moreover, 47.8 percent of the participants strongly agreed that they used the Internet to remain interested in teaching. As seen, teachers facilitated ICT for their overall professional developments.

4.2.2 EFL Teachers' use of ICT for Practices at Classroom Level Based on the Questionnaire

Participants teachers' responses with respect to the use of ICT for practices at classroom level were taken through 8 Likert type items of the questionnaire. Participants rated their use of ICT for classroom practices as "strongly agree, agree, disagree and strongly disagree" as it can be seen at Table 11.

Table 11: Participants' responses with respect to the Internet's contribution to English language Teachers' practices at classroom level

	The Internet's contribution to English Language Teachers' practices at classroom level	Strongly Agree (%)	Agree (%)	Disagree (%)	Strongly Disagree (%)
1	I use the Internet to present creative works	43.5	45.1	.5	10.9
2	I use the Internet to be involved in a world of information	53.8	41.8	.5	3.8
3	I use the Internet to find materials	72.3	25	1.1	1.6
4	I use the Internet to experience creative works	57.6	38	.5	3.8
5	I use the Internet to learn about variety of topics	60.9	36.4	.5	2.2
6	I use the Internet to read academic articles from online journals	41.8	32.1	2.2	23.9
7	I use the Internet to search information	69	28.8	1.1	1.1
8	I use the Internet to find exercises	66.8	29.3	1.1	2.7
	AVERAGE PERCENTILES	58.21	34.56	0.93	6.25

Results of the questionnaire about the Internet's contribution to English Language Teachers' practices at classroom level indicated that majority of the participants agreed that they facilitated the Internet for classroom practices. Most of the participants (58.21 %) used the Internet for teaching purposes. They used the Internet for a variety of different aims such as to prepare classroom materials, to improve teachings, to search information, to be more creative in teaching etc. To illustrate, 45.1 percent of the participants agreed that they used the Internet to present creative works. Teachers had a chance to see innovative ways of teachings via the Internet and they can present their teachings in a more creative way. In addition, 53.8 percent of the teachers strongly agreed that they used the Internet to be involved in a world of information. Participant teachers used the Internet as a tool to search information and they were aware that the Internet opened way to a huge database of knowledge that they can easily reach.

Most of the participants (72.3%) also agreed that they used the Internet to find materials. Teachers used the Internet to prepare classroom activities and materials. The Internet gave teachers opportunity to search and find lots of activities and materials in short time with time flexibility. Moreover, 57.6 percent of the participants strongly agreed that they used the Internet to experience creative works. They had a chance to investigate and find lots of creative practices of classroom via the Internet. In addition, 60.9 percent of the participant teachers also strongly agreed that they used the Internet to learn about a variety of topics. They facilitated the Internet to search information and expand their knowledge. Moreover, 69 percent of the participants strongly agreed that they used to Internet to search information and 96.1 percent of them stated that they used the Internet to find exercises. Additionally, more than half of the participants (66.8 %) also strongly agreed that they used the Internet to read academic articled from online journals. However, when compared to the other classroom practices' percentages, the Internet was less frequently used for academic purposes. They mostly used the Internet for searching and preparing classroom practices or investigating a topic or teaching ideas.

4.2.3 EFL Teachers' use of ICT for Collaboration with others Based on the Questionnaire

Participants teachers' responses with respect to the use of ICT for collaboration with others were taken through Likert type items of the questionnaire. Participants rated their use of ICT to collaborate with others as "strongly agree, agree, disagree and strongly disagree" as it can be seen at Table 12.

Table 12: Participants' responses with respect to teachers practices of the Internet to collaborate with others

	Teachers practices of the Internet to collaborate with others	Strongly Agree (%)	Agree (%)	Disagree (%)	Strongly Disagree (%)
1	I use the Internet to develop communication skills with others	28.3	43.5	3.3	25
2	I use the Internet to exchange information, knowledge and stories with teachers	38.6	41.3	4.9	15.2
3	I use the Internet to seek information from others	47.8	45.7	2.7	3.8
4	I use the Internet to develop thinking skills with others	37	42.9	3.3	16.8
5	I use the Internet to share feedback by posting messages to others	27.7	42.4	6.5	23.4
6	I use the Internet to develop a strong base for learning	34.2	50	2.7	13
7	I use the Internet to receive professional support from teachers	30.4	40.8	6	22.8
8	I use the Internet to find lesson plans from others	38	40.8	7.1	14.1
9	I use the Internet to increase communication between teachers	33.7	35.9	4.9	25.5
10	I use the Internet to give professional support to teachers	28.8	32.1	8.7	30.4
11	I use the Internet to combine new opinions with my own.	45.7	44	2.7	7.6
12	I use the Internet to enjoy when collaborating online with others	34.2	40.2	6	19.6
	AVERAGE PERCENTILES	35.36	41.63	4.9	18,1

Results of the questionnaire about the Internet's contribution to English Language Teachers' collaboration with others indicated that most of the teachers (41.63 %) agreed that they facilitated the Internet to collaborate with others. Among the other practices of the use of the Internet for collaboration, percentiles showed that participants mostly used the Internet to search information from others. Most of the participants (47.8%) strongly agreed that they used the Internet to seek information from others. In addition, most of the participants stated that they learned information from others and they merged them with theirs and constituted a more innovative idea as, 45. 7 percent of the participants strongly agreed that they used the Internet to combine new opinions with their own and agreed that they used the Internet to find lesson plans from others (40.8 %).

In addition, half of the participants also stated that they used the Internet to develop a strong base for learning. The Internet gave teachers opportunity to constitute a foundation for their learnings and teachings. Results also showed that participants used the Internet to exchange information, knowledge and stories with other teachers because 41.3 percent of the participants agreed to do so. The Internet also helped teachers to collaborate with each other and exchange ideas and knowledge in an easy way with time and place flexibility. Additionally, most of the teachers (40.8) agreed that they used the Internet to receive professional support from other teachers. Interestingly, results indicated that fewer teachers (32.1 %) agreed that they used the Internet to give professional support to other teachers.

Teachers mostly used the Internet to take support from others rather than give professional support. Teachers also used the Internet to improve their language skills and, 43.5 percent of the participants agreed that they used the Internet to develop communication skills with others. In addition, they also improved their metacognitive abilities through the Internet. Moreover, 42.9 percent of the participants agreed that they used the Internet to develop thinking skills with others.

Additionally, teachers used the Internet to increase communication between teachers (35.9 %) and to enjoy when collaborating online with others (40.2 %). They also used the

Internet to share feedback by posting messages to others (42.4 %). Participant teachers benefited from the Internets' facilities to collaborate with other teachers to great extent.

4.3 Research Question 2. Which ICT resources do EFL teachers use for self-directed professional development (SDPD)?

To answer this research question, participants' answers to open-ended questions of the questionnaire were evaluated. In addition, interview transcriptions were analyzed. Related information with respect to the results can be found below.

4.3.1 EFL Teachers' use of ICT Resources for Self-Directed Professional Development Based on Open-ended Questions of the Questionnaire

A few open-ended questions were added to the questionnaire to get more information about teachers' use of ICT resources for professional development and to triangulate the quantitative data with qualitative data. One of the open-ended questions was about teachers' ICT resources that they facilitated for professional development. Teachers answers were coded and divided into categories to make the results more comprehensible and clear.

As it can be seen at Table 13, participants used a variety of ICT resources for their self-directed professional development. Based on the teachers' answers, ICT resources were grouped into two categories as software and hardware ICT resources. And, under the category of software ICT resources, there were social networking platforms and educational platforms.

Table 13: ICT Resources Used by EFL Teachers Based on Open-ended Questions of the Questionnaire

ICT Resources used by EFL teachers		
Software		*ƒ*
Social Media Platforms	Facebook Groups	31
	Forums	29
	YouTube	28
	Pinterest	6
	Blog	6
	Twitter	3
	Academia.edu	2
	ResearchGate	2
Educational Platforms	Educational Websites	36
	Educational Databases	13
	Educational Applications	8
	Internet Resources	8
	Online Courses	6
	Online Quizzes	5
	Online Educational Games	5
	Morpha Campus	3
	Online Dictionaries	2
	Webinars	2
Hardware		*ƒ*
	Smartphone	48
	Computer	25
	Interactive White Board	8
	Total	276

Results indicated that teachers facilitated social media platforms to develop themselves professionally. For example, they followed leading linguists' and successful innovative teachers' social media accounts. One of the prominent social media platform mentioned by participants were Facebook. Teachers stated that they used Facebook groups for professional development aims. Teachers explained that they learned about the new methods and techniques used in language teaching and they found extra materials to be used in the class through Facebook groups. In addition, they interacted with other teachers

and exchanged information and took support for teaching and learning practices. Participants viewed Facebook groups as a professional development medium. Teachers also made use of forums for professional development purposes to great extent. Teachers stated that they read and commented discussion forums of language teachers. They also remarked that by reading forums they learned up to date information related to ELT.

YouTube was another social media platform used by participants. Teachers indicated that they both used YouTube for learning and teaching practices. They made students watch a relevant video about the lesson and brainstormed with students. YouTube presented visual and audial materials and resources for teachers. In addition, teachers expressed that they watched talks such as Ted and TedX talks via YouTube and improved themselves professionally. Teachers also facilitated Pinterest, blogs and twitter for professional development purposes. They referred that they used these platforms for a variety of purposes ranging from material development to professional development. In addition, participants also stated that they used some academic social media platforms such as Academia.edu and ResearchGate to follow academics in the field of ELT, to be in contact with them and read their papers.

Participants also mentioned multiple educational platforms that they used for professional development purposes. Prominent educational platforms referred by participants were educational websites and databases. Participants stated that they used websites and databases where teachers shared ideas, lesson plans and materials. They came up with different ideas and plans and expand their knowledge and improve their teaching skills and classroom management. Teachers also used educational applications for teaching and learning practices. There were many applications specially designed for educational purposes. For example, one of the teachers stated that he downloaded an application for grading exams and he stated that the application made the evaluation process easier and quicker. In addition, some of the teachers expressed that they used online quizzes to attract students' attention and increase their motivation.

Teachers also mentioned that they used the Internet resources without specifying. They stated that they googled and found lots of ideas and materials for their aims. Some of the teachers indicated that they used the Internet resources to plan their lessons other than books. Teachers also participated online courses and webinars to improve themselves professionally and to stay up to date. They stated that joining online courses and webinars with time and place flexibility gave them great opportunity to grow professionally. Another educational platform that participants stated was interactive educational game like Kahoot which was played with smartphones. In addition, teachers stated that they used online dictionaries especially for vocabulary teaching to give detailed explanations for a specific vocabulary item. And lastly, some of the teachers used Morpha Campus to support students' learning and to be in contact.

Participants also referred some hardware ICT resources that they facilitated to reach information. Smartphone was the most mentioned hardware. Teachers expressed that they used smartphone for a variety of different purposes ranging from computer, photographer and media player. Teachers stated that it was easy to carry the smartphones and todays' smartphones could nearly do anything that a computer could do. Therefore, they also used them for teaching and learnings. Teachers also indicated that they used computers and interactive whiteboards as ICT resources. As deduced from teachers' remarks, using interactive white boards enabled teachers to motivate their students and learning became more permanent with visual and audial materials.

4.3.2 EFL Teachers' use of ICT Resources for Self-Directed Professional Development Based on Interview Results

Interviews were conducted with the teachers who volunteered to participate. During the interviews, teachers were asked to define ICT resources that they used for professional development purposes to triangulate the results taken from open-ended questions of the questionnaire. Their answers were coded and grouped into two categories as software and hardware ICT resources as it could be seen at the Table 14 below. And, under the category of software, there were social media platforms and educational platforms.

Table 14: ICT Resources Used by EFL Teachers Based on Interview Results

ICT Resources used by EFL teachers		
Software		*f*
Social Media Platforms	Facebook Groups	9
	Forums	5
	Twitter	3
	Instagram	2
	YouTube	2
	Blog	1
Educational Platforms	Educational Websites	8
	Webinars	4
	Educational Databases	4
	Online Courses	3
	Educational Applications	2
	Online Educational Games	1
	Online Projects	1
Hardware		*f*
	Smartphone	8
	Computer	2
	Interactive White Board	2
	Total	57

Participants' answers indicated that teachers facilitated social media platforms to great extent to develop themselves professionally. They followed Facebook groups, forums, blogs, twitter, Instagram and YouTube to benefit from them. They got into contact with other teachers and exchanged ideas and took support. Teachers stated that they not only took professional support but they also took psychological support from these networks. In addition, they referred that social networking platforms helped them for material development. Teachers shared their materials via these networks and teachers could use these materials either as it was or by adapting them. Moreover, they could follow up to date information thanks to the sharing of these networks. The following statements were indicative of what was meant:

As teachers, we may also have some problems in our professional life. We can also share our personal problems with each other and get some opinions about what to do in such problematic situations. I mean, via social media, we can get both professional and psychological support. (Participant 1, Female, Primary Level)

I receive approved resources. For example, one teacher uses an exam and he suggests that exam. If I use the test the first time, it might have problems but if I use the approved one, it could be more easily adapted for students.   Don't miss any announcement or any important event, tips about classroom management, be informed about the Ministry of National Education and other official issues. (Participant 6, Male, Secondary Level)

One of the prominent social media platform mentioned by participants was Facebook groups. More than half of the interviewed participants were members of Facebook groups and they were benefiting from the groups' posts for professional development aims. Results indicated that there were many Facebook groups serving teachers to be in contact with and to interact each other. Teachers reflected that they benefited from these groups for a variety of purposes ranging from material development to classroom management issues. Teachers stated that they were interacting with each other on these groups and took support even if they did not know each other personally. Teachers were willing to help each other and to exchange ideas as deduced by the following remark:

I look at other teachers' posts. They sometimes give practical ideas about in-class activities. They sometimes suggest academic article. I follow the updates through these groups. (Participant 12, Female, University Level)

Results also indicated that teachers used forums for professional development purposes. Teachers followed forums both at national level and international level to follow the updates and to improve themselves. For example, some of the participants stated that they followed "Language Forum of Turkey" to exchange information on national level between teachers. Or, another teacher stated that:

I follow forums such as teaching English supported by BBC and British Council. (Participant 10, Female, University Level)

Teachers also facilitated twitter, Instagram, YouTube and blogs for professional development. They expressed that via twitter they could easily reach people and follow their sharing. In addition, they could easily get in contact and interact with others. One of the interviewed teachers remarked that he just used twitter for professional purposes and did not follow anyone other than educationalists or English teachers. He followed their posts and benefited from them. Likewise, via Instagram teachers could prepare classroom activities and benefit from people's sharing. They could learn innovative ideas and prepare creative classroom practices. They could also follow the updates and get inspired as illustrated by the following example:

Instagram is a great way for me to keep up with the latest educational technology and teaching trends. (Participant 10, Female, University Level)

YouTube was also used by teachers for professional purposes. They subscribed channels about ELT and followed notable people in the field. For example, teachers followed *Cambridge English or Oxford English* to improve themselves professionally. In addition, they made students watch videos and made the lesson more interactive and creative. YouTube presented teachers invaluable resources for both teaching and learning practices. Blogs were also used by teachers and teachers benefited from blogs professionally. They read the blogs and learned new techniques and methods. In addition, they improved their teaching abilities by following personal blogs by professional teachers or teacher trainers. Teaches also facilitated educational platforms for professional development purposes. They benefited from educational websites and databases, participated webinars and online courses, used educational games and applications and participated online projects to improve themselves professionally as deduced by the following example:

I use busyteachers.org (searching for different lesson plans), e-twinning (getting to know different teaching practices all over the world), online dictionaries (oxford dictionaries, etc.) I also find and download English games or exercises from play store. (Participant 3, Female, Primary Level)

Results of the interviews illustrated that educational websites were used by teachers for both teaching and learning practices. Teachers benefited from educational websites and databases to prepare classroom practices as a support to course book, to learn new techniques and methods and to follow the resent developments in the field. In addition, teachers also followed popular journals like National Geographic, Economist, Foreign Policy and American Scientist to develop themselves professionally. Teachers also joined online courses and webinars. They stated that online courses and webinars were interactive and teachers could learn a variety of things through participating them. They also stated that online courses and webinars presented them a great opportunity to develop themselves with time, cost and place flexibility without going to long distances and arranging their busy schedules. One of the teachers stated that he learned about webinars after filling out the questionnaire and he participated and benefited from them a lot.

Teachers also facilitated educational applications and online educational games for teaching and learning activities. Some of the mentioned smartphone applications were *TED Talks, Voscreen, Quizlet.* Results indicated that teachers found using applications easy and beneficial for many purposes ranging from self-professional development to teaching and testing purposes. Teachers also stated that online educational games increased the motivation of students and attracted their attention. For example, one of the teachers mentioned a game called "Kahoot" which was played with smartphones with the whole class. She indicated that the game increased the motivation of students. Moreover, online projects were also facilitated by teachers for professional development purposes as illustrated by the following exert:

I participate e-twinning projects to learn different teaching practices all over the world. (Participant 3, Female, Primary Level)

Teachers mentioned a few hardware ICT resources during the interviews. Teachers stated that they used smartphone, computers and interactive white boards for professional development purposes. The most referred one was smartphones. In the last decades, smartphone technology improved a lot and now, they could nearly do anything that a computer could do. It was referred by teachers' remarks that teachers facilitated their smartphones to compensate the deficiencies of technology infrastructure of the school as reflected by the following remark:

The school I work does not have required technological infrastructure. We do not have smart board or the Internet connection in class. Therefore, I use my smartphone for listening activities. (Participant 4, Female, Secondary Level)

Teachers indicated that smartphones were widely used for professional development purposes. They were easy to carry and use. Teachers benefited from smartphones for teaching practices inside of the classroom to compensate technological deficiencies.

4.4 Research Question 3. How do EFL teachers use ICT resources for SDPD?

To answer this research question, interviews were conducted with voluntary participants. And, interview transcriptions were analyzed. Related information with respect to the results can be found below.

4.4.1 EFL teachers' purposes of the use of ICT resources based on Interview Results

To answer the research question three, participants were asked about how they used ICT resources for their self-directed professional development during the interviews. Participants' answers were transcribed, coded and grouped into different themes. As it could be seen at Table 15 below, participants made use of ICT resources for a variety of

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different purposes. They used ICT resources to develop themselves professionally, to prepare classroom practices, to collaborate with other teachers and to evaluate students.

Table 15: EFL teachers' purposes of the use of ICT resources based on Interview Results

EFL teachers' purposes of the use of ICT resources		
Themes	**Codes**	***f***
Professional Development	To join webinars and online courses	4
	To follow updated information about ELT	3
	To make e-twinning projects	2
	To develop teachers' language skills	2
	To learn using ICT tools	1
	To download articles about ELT	1
Teaching practices	To prepare classroom materials	8
	To play interactive educational games with technology	2
	To make students watch a video	2
Collaboration	To learn from other teachers' experiences	9
	To interact with other teachers	4
Evaluation	To evaluate students	1
	Total	39

Participants facilitated ICT resources to develop themselves professionally. To illustrate, teachers used ICT resources to join online courses and webinars. During the interviews, some of the teachers stated that joining webinars and online courses improved themselves professionally. One of the teachers stated that he heard about the webinars for the first time while filling the questionnaire and he searched and began to join them. He indicated that webinars were very interactive. Participants could ask questions, give feedback and get involved to the process. Teachers were also eager to learn new things from online

courses and apply them in their teaching contexts. They stated that online courses and webinars presented teachers flexibility at learning in any time and place and opportunities to develop their teaching skills, staying up to date and learning new methods. The following statement provided a clear example of these situations:

> *I participated an online course about "flip classroom" and I tried it for my classroom. It was very effective. It was very easy for me to do the practices at classroom. While we were doing activities, they knew what to do as they studied the lesson before school at home. (Participant 2, Female, Primary Level)*

> *Webinars are very interactive, you know they ask question and the teachers give answers. The last webinar I joined was at Cambridge university press about listening assessment. It was about listening assessment. How can a listening assessment be difficult or easy? Cefr standards and how can we adapt these standards and how can we notice these standards in listening assessment were mentioned. (Participant 6, Male, Secondary Level)*

Teachers also followed up to date information about ELT via ICT resources. They could catch what was new in the field of English Language Teaching and what was going on. Moreover, teachers participated e-twinning projects through ICT. Teachers stated that thanks to e-twinning projects they had a chance to interact with teachers all around the world, share their experiences and take suggestions and different ideas of teaching and learning. They viewed projects as an influential tool in developing themselves professionally. Teachers also facilitated ICT resources to develop their language skills as deduced by the following example:

> *I have learnt so many things through blogs, ranging from using Web 2.00 tools effectively to improving my pronunciation. And, I really enjoy listening to TED talks and I think, they contribute to my language skills. (Participant 10, Female, University Level)*

Teachers also used ICT to learn how to use various ICT tools. One of the teachers expressed that by searching from the Internet it was possible to learn how to use a specific resource or application easily. There were many explanations and videos to help people understand how to use a specific ICT resource. Teachers also used ICT resources to improve themselves academically. One of the participants stated during the interview that they downloaded articles about ELT and followed the contemporary state of the field.

Teachers also used ICT resources for teaching practices. One of the purposes of teachers' use of ICT resources was for preparing classroom materials. Teachers stated that they searched on the Internet to prepare classroom activities. The Internet provided teachers vast amount of resources and a variety of teaching activities. Some of the teachers expressed that the Internet resources enriched their teaching practices and helped them to teach the content with different classroom activities. They could either find a material or activity and use it as it was, if it was proper for their teaching contexts or they made some modifications for their special teaching contexts as deduced by the following example:

> *For example, my topic is superstitions for 7th grade tomorrow. I search from the Internet. There is a site called "American Ideal Game". I look and investigate what I can do as an activity. I sometimes find and activity and do it at class as it is, but sometimes, I make some modifications and make it appropriate for my teaching context. (Participant 4, Female, Secondary Level)*

Another purpose of the use of ICT resources was to play interactive educational games. Some of the teachers stated during the interviews that they made use of interactive games to attract students' attention and to increase their motivation. For example, one of the teachers mentioned a game which was called as "Kahoot". It was played with mobile phones and teachers stated that it attracted students' attention a lot. Teachers also stated during the interviews that using visual and audial materials increased students' motivation and it affected their learning processes. Some of the teachers indicated that they made students watch videos related to the teaching topic. Teachers also stated that making

students watch an authentic piece of video improved their listening skills as illustrated by the fallowing remark:

> *For a specific topic, I definitely try to find a video. I take that video and put subtitles if there is. If there is not, I write subtitles by myself. For example, there is a contest called "Yetenek Sizsiniz". It has American version. I use parts of videos from that contest and use them at classroom. I use them to improve their listening skills and to expose them authentic use of language. (Participant 9, Male, High School Level)*

Participants stated that they learned from other teachers' experiences thanks to ICT resources. Teachers of today's digital world had a chance to share their teaching ideas, to take suggestions and to be in contact with other teachers all around the world by means of ICT resources. Teachers were eager to learn from each other and to reflect their own teaching experiences to others. They had a chance to look at other teachers' experiences, how they taught, their techniques, materials and take suggestions for their own teaching and learning practices. Besides learning from other teachers' experiences, teachers could also think analytically and took into consideration their own teaching contexts with respect to the appropriateness of the specific idea of teaching. The following statement provided a clear example of this situation.

> *I generally use ICT to follow what other teachers do and which methods they use. To give a specific example, a few days ago, I saw that a foreign teacher who tries to teach irregular verbs with a rap music with tones like break, broke, broken. I liked that activity. I did not use this activity because I work at high school and it can be difficult to control students in my context. However, if I worked at primary school, I would definitely use it. (Participant 8, Male, High School Level)*

One of the participants stated that they saw other teachers' experiences and got an opportunity to get beneficial ideas for a better teaching environment as deduced by the following remarks:

On forums and social media platforms, teacher share their experiences and I use them to learn from their experiences and to take suggestions. (Participant 11, Female, University Level)

I get to see what the other teachers from all around Turkey do in their classes and get the chance to see their ideas for a better teaching environment. (Participant 1, Female, Primary Level)

Another purpose of teachers' use of ICT resources which was stated at the interviews was to interact with other teachers. Teachers collaborated with each other through ICT resources. Some of them stated that they joined Facebook groups and interacted with their colleagues. They asked questions and shared their materials.

Lastly, teachers made use of ICT for evaluation purposes. One of the teachers indicated that using ICT tools made the evaluation easier and quicker. There were many applications and programs specially prepared to help evaluation processes of education and using these resources could help teachers to realize their profession more efficiently and easily. The following statement provided a clear example of this situation:

I use my smartphone to evaluate students' papers. I have downloaded an application and it is easy to grade students' papers (Participant 10, Female, University Level).

4.5 Research Question 4. What are the factors that promote/ inhibit EFL teachers' use of ICT for SDPD?

To answer this research question, participants' answers to Likert type items and open-ended questions of the questionnaire were evaluated. In addition, interview transcriptions were analyzed. Related information with respect to the results can be found below.

4.5.1 EFL Teachers' Motives to Seek Online Educational Resources Based on the Questionnaire

Participants teachers' responses with respect to the motives to seek online educational resources were taken through 9 Likert type items of the questionnaire. Participants rated their use of ICT for professional development purposes as "strongly agree, agree, disagree and strongly disagree" as it can be seen at Table 16.

Table 16: Participants' responses with respect to their motives to seek online educational resources

	Motives to seek online educational resources	Strongly Agree (%)	Agree (%)	Disagree (%)	Strongly Disagree (%)
1	I build my own teaching prestige with resources that are rich with media content	37	53.8	1.6	7.6
2	I stay up-to-date with latest teaching practices in language education	40.2	50.5	2.2	7.1
3	They contribute to my own mastery of subject matter being taught in the Turkish context	28.	56	3.8	11.4
4	They make my students excited about a topic	55.4	38	3.3	3.3
5	They maximize creativity in language learning classroom experience	46.7	42.9	2.7	7.6
6	They provide low cost or free resources compared to textbook costs used in my class	50.5	41.3	1.1	7.1
7	I can select, modify, and add content that meet the specific needs of my students	54.9	39.1	2.2	3.8
8	They allow me to do things that I would not have done using only the textbook	53.3	39.1	2.2	5.4
9	My colleagues recommended to do so in order to make my job easy	16.8	39.1	14.7	29.3
	AVERAGE PERCENTILES	42.62	44.42	3,75	9.17

Results of the questionnaire indicated that participants were motivated to seek online educational resources to great extent. It was seen that 44.42 percent of the participants agreed that they were motivated to seek online educational resources. Their motives were various in searching online resources. To illustrate, 53.8 percent of the participants agreed that they built their own teaching prestige with resources that are rich with media content. Teachers were eager to enrich their teachings with different resources taken from the Internet resources. Teachers were also aware that they needed to improve themselves continuously and follow the changes in the field. Therefore, they were motivated to benefit from the internet resources to be updated. Teachers (50.5 %) also agreed that they stayed up-to-date with latest teaching practices in language education thanks to the internet resources. Teachers also stated that the Internet resources helped them to improve and expand their teachings and subject matter in their special teaching contexts. In addition, 56 percent of the participants agreed that the Internet resources contributed to their own mastery of subject matter being taught in the Turkish context.

Moreover, most of the participants (46.7%) strongly agreed that the Internet resources maximized creativity in language learning classroom experience. Teachers could find more innovative teaching ideas via the Internet and improve their teaching practices. And, teachers (55.4 %) strongly agreed that the Internet resources made their students excited about a topic. Students' interests towards the lesson also increased with the Internet resources. Additionally, teachers could reach multiple resources from the Internet and they could adapt the materials for their teaching contexts.

Moreover, 54.9 % of the teachers agreed that they could select, modify, and add content that meet the specific needs of their students. Another motive of teachers in selecting the Internet resources was about the cost of the materials. In addition, 50.5 percent of the participants agreed that the Internet resources provided low cost or free resources compared to textbook costs used in their class. Unfortunately, resources in teaching English were expensive and it was difficult for teachers to supply multiple books to be used in their teachings. However, the Internet gave possibility to teachers to reach

immense source of materials in a short time with time and place flexibility. Moreover, teachers (53.3 %) also strongly agreed that the Internet allowed them to do things that they would not have done using only the textbook. Teachers could enrich their teachings with audial or visual materials and make the lesson more enjoyable and attractive for students. Interestingly, 29.3 percent of the participants strongly disagreed with the statement that "*my colleagues recommended to do so in order to make my job easy*". Nearly half of the participant teachers were not motivated to use the Internet resources with the suggestions of their colleagues. Clearly, they had different motives in choosing the Internet resources.

4.5.2 Promoting Factors of the Use of ICT Resources for Self-Directed Professional Development Based on Open-ended Questions of the Questionnaire

Analysis of the open-ended questions in the questionnaire indicated that there were multiple factors that promoted participants to use ICT resources. As a result of the analysis, codes and themes were formed as it could be seen at the Table 17. Four themes, contribution to students' learning, teacher professional development, resource and collaboration among teachers, were extracted.

Most prominent promoting factors that teachers mentioned was to increase students' motivation, to increase students' motivation, to develop teaching skills, to stay up to date, to motivate teachers, to prepare classroom activities and to reach a variety of sources. In addition, teachers also mentioned that ICT provided quick and easy interaction among teachers and they learned from other teachers' experiences.

Table 17: Promoting Factors of the Use of ICT Resources for Self-Directed Professional Development Based on Open-ended Questions of the Questionnaire

	Promoting Factors	
Themes	**Codes**	**ƒ**
Contribution to students' learning	Increasing the motivation of students	55
	Increasing creativity in teaching	47
	Enhancing students' learning	11
Teacher professional development	Developing teaching skills	46
	Staying up to date	45
	Motivation of teachers	24
	Joining webinars and online courses	15
	Flexibility of learning at any time and place	9
	Finding solutions to problems	4
Resource	Preparing class activities	42
	Reaching a variety of sources	35
	Easy access to articles and journals	15
	Reaching authentic materials	8
Collaboration among teachers	Quick and easy interaction with other teachers	32
	Learning from other teachers' experiences	30
	Total	453

Results showed that teachers thought using ICT resources contributed students' learning by increasing students' motivation and learning. In addition, increasing creativity in teaching also contributed to students' learning processes. Using ICT resources enabled teachers to appeal to different learning habits of students. For example, teachers referred that when the students who loved listening a song or watching documentaries watched video or listened a song related to the topic, they also enjoyed the learning procedure. While students were doing such things they also learned the topic easily and had fun. To illustrate, one of the teachers stated that when he opened some videos about interesting places when they were talking about the places to see, students were more enthusiastic to talk.

In addition, teachers indicated that when they used smartboards, students got rid of their shyness and therefore, they could build up their courage. Teachers also used social networking sites to motivated students. For example, one of the teachers mentioned that they formed a Facebook group among their 5th grade students and they shared many things which were useful for students. And, even if in class students were nervous in speaking, they were volunteer to share some information about English course.

Teachers also benefited from ICT resources for their self-directed professional development practices. ICT resources helped teachers to be up to date and follow new methods and materials. Teachers could reach the information at any time and place and most of the time, they did not have to pay a fee. They also allowed teachers to go beyond traditional means of teaching a foreign language. For example, teachers watched TED-ed videos in which real teachers taught in real classrooms using different techniques and methods providing teachers valuable ideas for teaching. They renewed and upgraded their professional knowledge, thinking and teaching techniques. Teachers also stated that when they facilitated ICT resources, they felt more confident before their students as they could motivate them in the lesson. Teachers indicated that when the motivation of teachers increased, students' motivation also increased.

Teachers also benefited from ICT resources to join webinars and online courses. Teachers stated that by joining webinars and online courses, they improved themselves professionally and learned new techniques and methods. Teachers also suggested that ICT resources presented teachers opportunities to learn at any time and place. Some of the teachers mentioned that they wanted to join conferences or trainings but they could not arrange their schedule or they were far away from central locations in which activities were realized. Therefore, most of the time they could not join them. However, ICT resources gave teachers flexibility of learning at any time and place and teachers were aware of this opportunity. Moreover, teachers found solutions to their teaching and learning problems via ICT resources. Teacher investigated on the internet, asked other people through ICT and found solutions and suggestions to their problems.

Another promoting factor that the results showed was about resource. Teachers indicated that ICT helped teachers to find resources and prepare enriched classroom activities. Teachers designed new creative materials and easily found authentic resources. Teachers expressed that text book materials were usually and mostly artificial in terms of the use of the language. ICT helped teachers to provide students with real life communication materials such as idioms, phrases and vocabulary that were being used in English speaking world. In addition, teachers also used ICT for academic purposes to supply resources. One of the participants stated that "*if there were not any ICT resources, probably, I would need to move at the library to complete my MA*". Another theme extracted from the analysis were "collaboration among teachers". Results showed that teachers also used ICT resources for quick and easy interaction with other teachers and learning from other teachers' experiences. Most of the participants stated that they were members of different Facebook groups and they interacted with other teachers and they shared their resources, opinions, thoughts and ideas via these platforms. Participants also indicated that even if they did not meet nearly any of the teachers face to face, they counted on their sincerity and opinions.

4.5.3 Inhibiting Factors of the Use of ICT Resources for Self-Directed Professional Development Based on Open-ended Questions of the Questionnaire

Teachers also stated multiple factors that inhibited them to use ICT resources. These factors were divided into two themes which were called as external factors and internal factors as it was presented at the Table 18. As deduced from the results, external factors outweighed internal factors indicating that most of the inhibiting factors of the use of ICT resources for self-directed professional development resulted from external factors.

Table 18: Inhibiting Factors of the Use of ICT Resources for Self-Directed Professional Development Based on Open-ended Questions of the Questionnaire

Inhibiting Factors		
Themes	**Codes**	**ƒ**
External Factors	Slow internet connection	23
	Technical problems	18
	Limited number of ICT trainings and workshops	10
	Technology infrastructure of the school	8
	Paid websites	5
	Inappropriate materials	4
Internal Factors	Lack of motivation of students and teachers	4
	Difficulty of choosing the right material among many others	4
	Time consuming	2
	Total	78

Within the scope of the external factors, teachers mentioned different inhibitors. Among them, slow Internet connection and technical problems were most widely pronounced ones by teachers. Teachers stated that because of low speed of the Internet or failure in getting connected, it sometimes took longer to log in or keep online. In addition, some of the participants indicated that they had problems with the Internet connection of smart boards therefore, they continued with other paper resources.

Teachers also suggested that they needed trainings or workshops to use ICT more effectively. Most of the teachers thought that they knew how to use basic ICT resources but to use them more efficiently workshops or trainings would be beneficial. Teachers also stated that sometimes technology infrastructure of the schools inhibited them to use ICT. A few teachers said that they still used chalk at school and they had only one projection at the school and they had difficulty in opening it. Therefore, they printed out their material instead of losing time. Moreover, some of the teachers stated that paid websites inhibited them to use ICT resources. For example, one of the teachers said that most of the useful and up to date articles and resources demanded paying. In addition,

among the resources there were many inappropriate materials and choosing among them posed a great difficulty for teachers.

Teachers also mentioned a few internal factors that inhibited them to use ICT resources. Lack of motivation of students and teachers was one of them. Some of the teachers were not willing to use technology and they did not feel secure when they used. And sometimes, students were not interested in integration technology and this situation inhibited teachers to use ICT. Teachers were also had trouble in choosing the right material among others and this affected their motivation to use ICT resources. Some of the teachers expressed that they sometimes started to search a topic for classroom activity and they were exposed to vast amount of resources through the Internet then, they got puzzled and could not manage the situation. A few teachers stated that ICT presented a huge resource but it was difficult to find the correct material that you searched. Therefore, some of the teachers also viewed ICT as time consuming and it inhibited teachers to use ICT resources.

4.5.4 Promoting Factors of the Use of ICT Resources for Self-Directed Professional Development Based on Interview Results

Interviews were also conducted with some of the teachers to triangulate the data taken from the questionnaire and to learn more about teachers' use of ICT resources for professional development. During the interviews, teachers were also asked about the factors that promoted them to use ICT resources. Their answerers were transcribed, coded and divided into relevant themes. The extracted themes were compatible with the ones extracted from open-ended questions of the questionnaire. Similarly, four themes were noted named as "contribution to students' learning, teacher professional development, resource and collaboration among teachers" (Table 19).

Table 19: Promoting Factors of the Use of ICT Resources for Self-Directed Professional Development Based on Interview Results

Promoting Factors		
Themes	**Codes**	**ƒ**
Contribution to students' learning	Increasing the motivation of students	4
	Enhancing students' learning	2
	Increasing creativity in teaching	1
Teacher professional development	Motivation of teachers	7
	Staying up to date	5
	Improving teaching skills	4
	Developing 21 century skills	2
	Finding solutions to problems	1
Resource	Easy accessibility	4
	Preparing classroom activities	3
	Time-saving	1
Collaboration among teachers	Learning from other teachers' experiences	4
	Easy communication opportunities	3
	Total	40

Results of the analysis indicated that teachers thought that using ICT resources contributed to students' learning. Teachers indicated that students got motivated and became more excited and curious when ICT was incorporated. One of the interviewed teachers stated that as we were living at the Internet age, using the Internet, computer and smart phone was really important to make students more active and to increase their motivation. Teachers were also enjoyed presenting the language in an innovative and creative ways to catch students' attention to the lesson and thus, they were motivated to use ICT resources. In addition, teachers suggested that students of our generation were digital natives and they were motivated to use technology as illustrated by the following remarks:

> *We should definitely use technology as the students of our generation are digital natives and technology appeals to them. We need to be learner centered and*

address to different intelligence types of students. For example, when they see a video they do not forget easily or when you use a visual material learning becomes more permanent. (Participant 4, Female, Secondary Level)

Students learn faster with technology. Students direct us to use technology. Even teacher who are older than 50-60 also use technology in our school with students' desire. (Participant 1, Female, Primary Level)

Teachers were also motivated to use ICT resources for their self-directed professional development. Some of the interviewed teachers stressed that they were intrinsically motivated to use ICT resources. They felt competent on using digital sources. Teachers expressed that technology gave teachers chances to reflect on what they did, were doing and would do in their teachings and professional lives. In addition, they could discover new ways of teachings via technology. They had a chance to keep themselves update with new trends in teaching. A few teachers indicated that even if they were not digital natives like their students, they were still interested in using technology. They could compare the new technological possibilities with the classical ways of teachings and they could realize the advantages and disadvantages of using ICT resources.

Teachers also used ICT to develop 21 century skills. Teachers were aware of the fact that 21 century required teachers to learn new skills to address students' needs better. Teachers also needed to be technology literate and follow the latest trends in teaching and learning practices to be effective in their professional lives. For example, teachers stated that they watched videos or read blogs to learn how to use a technological device or an application better. Moreover, they also found solutions to their teaching and learning problems through this way. The following statements provided clear examples of these situations:

I am competent enough and I am very interested in using the technology. I am not a digital native but a digital nomad. Growing up with the technology is better than to born into technology. This has many advantages about using the ICT and comparing it classic professional development methods. (Participant 6, Male, Secondary Level)

I find more solutions to my teaching and learning problems and I can have creative ideas, cooperative, communicative ideas and I can manage to develop 21st century competences. (Participant 2)

Teachers also facilitated ICT resources to reach resources. They suggested that they could reach the resources easily and they could save time. They could more easily prepared classroom activities thanks to ICT resources. Teachers remarked that they could reach vast amount of resources through technology and they could develop their teaching materials archive. Technology gave teachers flexibility to reach the resources at any time and place. Teachers could reach the materials more easily thanks to technology. The following statement was indicative of what it was meant:

I can easily access to information and resources instead of going libraries and sparing time to find the relevant information. Thanks to technology, I can learn updated information in a more flexible way. (Participant 11, Female, University Level)

Another promoting factor that motivated teachers to use ICT resources was collaboration among teachers. Teachers stressed that they learned from other teachers experiences and they communicated through technology in an easier way. Teachers collaborated via ICT and learned from each other. For example, they joined webinars. they stated that webinars were very interactive. They asked questions to teachers and they interacted with each other. They could reach teachers from all around the world and had a chance to learn or see what other teachers did in their classes. They could compare their teaching ways with other teachers and they learned new methods and techniques. They also collaborated with other teachers and took suggestions or gave help. The following statements provided a clear example of this situation:

I get to see what the other teachers from all around Turkey do in their classes and get the chance to see their ideas for a better teaching environment. (Participant 1, Female, Primary Level)

Technology gives us an opportunity to compare our experiences with the other

teachers. (Participant 10, Female, University Level)

4.5.5 Inhibiting Factors of the Use of ICT Resources for Self-Directed Professional Development Based on Interview Results

During the interviews, teachers were also asked about the factors that inhibited them to use the ICT resources. teachers' answers were transcribed, coded and divided into themes. Themes extracted from the results were compatible with the themes of the inhibiting factors of the open-ended questions of the questionnaire. Inhibiting factors were grouped into two themes which were called as external and internal factors. As it could be seen at the Table 20, external factors outweighed internal factors. Teachers most dominantly mentioned external factors among the factors that inhibited them to use ICT.

Table 20: Inhibiting Factors of the Use of ICT Resources for Self-Directed Professional Development Based on Interview Results

Inhibiting Factors		
Themes	**Codes**	**f**
External Factors	Technical problems	5
	Technology infrastructure of the school	2
	Paid websites	3
	Inappropriate materials	1
	Limited number of ICT trainings and workshops	1
	Slow internet connection	1
Internal Factors	Time consuming	2
	Lack of motivation of teachers	2
	Finding the right place to search	1
	Total	18

Teachers stated that they experienced technical problems about the use of ICT resources and their schools' technology infrastructure was inadequate. Teachers expressed that they really wanted to use some applications to improve their lessons but they often failed to do because of poor physical conditions of the school. Teachers also stated that paid websites distracted them to use ICT resources. They expressed that some websites required a year

subscription. Teachers referred that they were not too expensive but as they did not know the service that they would take, it created a prejudice. Teachers also suggested that there were limited number of ICT trainings or workshops. They expressed that even if they had the basic ICT knowledge they needed extra support to use them more effectively. For example, a teacher stated that "*I sometimes need support about programs like Moodle. It is not just how to use them but to use them more effectively*" (Participant 11). Teachers also referred that slow internet connection inhibited them to use ICT. Teachers mostly suggested that they had difficulty with the Internet connection of smart boards. The internet connection was too slow and it distracted the lesson flow. The following statements provided clear examples the inhibiting factors mentioned here:

> *We have one projection at our school and we carry it to classrooms. We have difficulty in opening and closing it because my computer is old and the projection. We had connection problems. (Participant 4, Female, Secondary Level)*

> *Sometimes, we have difficulty in using smart board. It starts late because of virus or it requires special programs to open something during the lesson. (Participant 5, Female, Secondary Level)*

There were also internal factors that inhibited teachers to use ICT resources for professional development. Some of the teachers viewed ICT resources as time consuming. Results indicated that sometimes teachers preferred to follow course books not to spare extra time for lesson preparation. It was easier for teachers to follow the course book instead of searching an activity from the Internet as deduced by the following example:

> *Some of the teachers do not want to spare extra time for lesson preparation. It is easier for them to follow course book. Why do they spare extra time for finding a video or adapt a material found in the Internet? They just prefer to use what they have. (Participant 4, Female, Secondary Level)*

Another internal factor that inhibited teachers and students to use ICT was lack of motivation of students and teachers. Some of the teachers indicated that they were not enthusiastic to use technology and they were not feel secure when they integrated technology into their lessons. Sometimes the ICT resource was viewed by teachers as boring. A teacher remarked that blogs were boring for him. When the ICT was boring, he could not focus. The more the ICT was interactive the more teachers enjoyed. Teachers were also challenged to find the right places to search. A teacher mentioned that searching the right website was really important. If teachers found the right place to search, the rest was easier.

4.6 Research Question 5. What are EFL teachers' suggestions to use ICT resources for professional development?

To answer this research question, participants' answers to open-ended questions of the questionnaire were evaluated. In addition, interview transcriptions were analyzed. Related information with respect to the results can be found below.

4.6.1 Suggestions of EFL Teachers to use ICT resources for the Professional development of English teachers based on Open-ended Questions of the Questionnaire

Teachers suggestions to use ICT more effectively for teaching and learning practices were also taken through open-ended questions of the questionnaire. Data were transcribed, coded and divided into relevant themes. As it could be seen at the Table 21, two themes were extracted names as "to teachers" and "to administrators". Teachers expressed their suggestions to use ICT more efficiently and most of these suggestions were directed to teachers. There were also a few suggestions directed to administrators.

Table 21: Suggestions of EFL Teachers to use ICT resources for the Professional development of English teachers based on Open-ended Questions of the Questionnaire

	Suggestions	
Theme	**Code**	**f**
To teachers	Use ICT actively	34
	Stay up to date via ICT	24
	Use ICT for teaching practices	23
	Reach resources through the Internet	16
	Be curious and eager to benefit from ICT	16
	Collaborate with other teachers through ICT	16
	Use social networking sites for PD	10
	Be selective for ICT resources	9
	Use ELT based websites	8
	Join webinars and online courses	4
	Do not be afraid of using ICT	3
	Try flipped learning	2
To administrators	ICT training is necessary	19
	Technology infrastructure of the school should be improved	5
	A new curriculum with ICT integration is needed	2
	Reaching materials should be free	2
	Total	193

One of the suggestions referred by teachers was that teachers needed to use ICT resources as much as possible. Teachers expressed that as we were living at the digital age, using technology became an inevitable part of our lives and, also our professional lives. Therefore, participants indicated that teachers could be a good role model for students and society with respect to the use of technology. Teachers needed to use ICT for teaching and learning practices and improve themselves. Participants also suggested that teachers could stay up to date through ICT resources. Teachers expressed that after undergraduate education, teachers lost connection to the latest techniques and methods. And, to be on tract, using ICT was essential. Participants suggested that teachers needed to be lifelong learners and ICT gave teachers opportunities to learn with time and place flexibility. Most

of the participants indicated that they had difficulty in sparing time for developing themselves among their busy schedules and they also expressed that thanks to ICT they could more easily learn the latest improvements in the field. They suggested that teachers could download articles about ELT and stay up to date. Another suggestion of participants was that teachers could use ICT for teaching practices. They expressed that teachers could benefit from technology for both in class and out of class teaching practices. Teachers could search and find classroom materials before lessons and they could also use ICT in classrooms to make the lesson more interactive and creative for students.

Participants remarked that teachers could download many useful documents, films, stories and videos for their students, they could also create their own videos and they could bring these videos to the class and they could watch and comment on them. Students would love seeing themselves or their friends on screen. Participants also stated that teachers should use smartphone and interactive white boards to make the lesson more interactive and enjoyable. They indicated that interacting technology into lesson could increase students' motivation and it could increase learning.

Participants also suggested that teachers could reach vast amount of resources through the Internet. Teachers expressed that the Internet was a really important source for teaching English. They could find lots of materials related to their topic even just by googling. Participants also suggested that teachers needed to be curious and eager to benefit from ICT. Teachers needed to be aware of the possibilities provided by technology. For example, one of the teachers stressed that this age was application age and teachers could learn how to make an application and prepare a program for teaching English.

Another suggestion directed to teachers was that teachers should collaborate with other teachers through ICT. Technology gave teachers opportunities to interact with each other regardless of the time, place and distance. Participants stated that even if teachers did not have any experience or even idea about the Internet use and technology, they could find some forums and exchange ideas. And, after a while they would be addicted to use technology. Teachers could also compare their ways of teachings with others and they

could find their teaching weaknesses and strengths. They would also keep themselves up to date by keeping in contact with other teachers. Being in connection with others empowered teachers professionally.

Another suggestion directed to teachers was that teachers should use social networking sites for professional development. Teachers stated that there were many groups on social media which specifically served teachers to interact with each other and to take and give help. Teachers could join these groups and they could develop themselves professionally. for example, they could participate Facebook groups of English teachers, follow twits of prominent people in the field or YouTube channels about ELT. Being part of a sharing community could strength teachers professionally and help them to perform their profession.

Teachers were also suggested about being selective for ICT resources. There were many resources that could be reached through technology but not all of them were suitable as a teaching material. Teachers should look at the resource analytically and evaluate the resource whether it would be beneficial for a specific teaching context. Participants also suggested teachers to benefit from ELT based websites which were specifically prepared for teaching and learning practices such as British Council, ESL Printable, WordPress etc. they could reach materials and take suggestions on these sites. Another suggestion was that teachers should join webinars and online courses. Participants expressed that webinars and online courses expanded teachers teaching skills and developed them professionally. Thanks to technology, teachers could sit at their homes and connect to the whole world flexibly. They could follow the courses and webinars and interact with teachers all around the world. Moreover, participants suggested teachers to be brave and use ICT resources. Teachers remarked that teachers who did not deal with technology feel insecure when they used technology. However, they needed to be brave and use technology. Teachers indicated that when they used the technology and benefited from it, teachers' attitudes towards the use of ICT resources would change and they would also be eager to use technology.

In addition, a few participants suggested teachers to try flipped learning in their teachings. Participants expressed that when students came to classroom by learning about the content before the class, making activities were easier and students participated to the activities better.

Participants also mentioned suggestions directed to administrators. One of the suggestions was that ICT teacher professional development was necessary. Participants indicated that teachers needed to develop themselves to use ICT resources better. Teachers stated that they had the basic ICT knowledge but it would be better if they learned more about how to use different ICT resources. For example, teachers expressed that during the seminar period, Ministry of National Education could hire experts to develop teachers' ICT skills or offer online courses with high quality.

Teachers also remarked that technology infrastructure of the schools should be improved. Most of the participants stressed that schools did not have required technology support. Some of the teachers stated that they used their smartphones for listening activities or they used printed materials in classroom. Some of the teachers also stated that they had interactive white boards at their schools but they had connection problems and they could not use the equipment efficiently. Another suggestion referred to administrators was about paid websites. Teachers expressed that they had to pay to reach some of the materials. Some of the teachers demanded that reaching teaching resources should be free and teachers should use them for teaching practices freely.

4.6.2 Suggestions of EFL Teachers to use ICT resources for the Professional development of English teachers based on the Interview Results

During the interviews, participants were also asked about their suggestions to use ICT resources more efficiently. Their answers were coded and divided into two themes as "to teachers" and "to administrators" parallel to the themes of the open-ended questions of the questionnaire as it could be seen at the Table 22.

Table 22: Suggestions of EFL Teachers to use ICT resources for the Professional development of English teachers based on the Interview Results

	Suggestions	
Theme	**Code**	**ƒ**
To teachers	Use ICT actively	5
	Collaborate with other teachers through ICT	4
	Stay up to date via ICT	2
	Do not be afraid of using ICT	2
	Join webinars and online courses	2
	Subscribe online publications about ELT	1
	Be selective for ICT resources	1
	Pay attention to ethical issues	1
To administrators	ICT training is necessary	10
	Technological materials should be improved	3
	Technology infrastructure of the school should be improved	2
	Total	33

Participants mentioned many suggestions which were referred to teachers. One of the most prominent mentioned suggestion was that teachers should use ICT actively. Teachers thought that technology should be used actively especially in language education because English could not be taught just by describing. Students needed to be exposed to authentic use of language and it would be impossible to do it without technology. It was suggested that English teachers should be technology literate. The following statement was indicative of what was meant:

> *To give a specific example, students like short videos taken from films. It is more attractive and permanent for students to hear the sentence from the authentic materials instead of hearing the same sentence by me. (Participant 9, Male, High School Level)*

Another suggestion pronounced by participants was that teachers should collaborate with other teachers through ICT. Teachers expressed that staying in touch with other teachers was very important for the professional development of teachers. Teachers could join

webinars and they could watch and listen to successful teachers all around the world and see their use of incredible techniques and presentations. They could also collaborate with other teachers and take and give help to each other. Participants also suggested that teachers also needed to be life-long learners and they should not stop searching and learning. Teachers remarked that professional development meant trying to be fresh and global and this needed better and faster communication which only ICT could provide as deduced by the fallowing example:

> *Teachers need to follow ICT resources providing rich sources of information and valuable ideas for teaching effectively. They need to be technologically literate and keep track of recent applications and innovations in their field. This is only possible with active use of ICT. CPD (continuing professional development) is essential to providing a better education in the century of advances and innovations. (Participant 10, Female, University Level)*

Participants also suggested teachers to be brave to use ICT resources. During the interviews, teachers indicated that todays' students were digital natives and they were technology literate. And, to address students' needs teachers should also use ICT resources. they needed to improve themselves and have courageous to try something new and innovative with technology. Teachers stated that if teachers realized the benefits of using ICT resources, they would want to continue using them willingly. One of the teachers remarked that:

> *We are teaching digital natives they are using digital means more and more and that has become their language so we should be more competent on their language to reach them. Don't be afraid, use it. (Participant 3, Female, Primary Level)*

Joining webinars and online courses was also suggested to teachers to develop themselves professionally. Interviewed teachers stressed that they learned many new things by joining online courses and webinars and they thought that it would be beneficial for teachers to join them. Teachers could take ideas of different people and learn what other teachers did

in their classes all around the world. They could see common problems and take suggestions. They could also learn new skills through online courses and webinars as illustrated by the fallowing remark:

> *For example, I joined a webinar about preparing posters via gloster. I learned how to prepare posters there and I practiced it in my classes. It was so enjoyable and beneficial for students. (Participant 12, Female, University Level)*

Another suggestion directed to teachers was that teachers should subscribe online publications about ELT. For example, they could subscribe e-twinning weekly or monthly newsletter. They could remind teachers to take some time for their personal development. In addition, teachers needed to be selective for ICT resources. They needed to select the correct material for their teaching contexts and students' needs and if necessary, they needed to adapt the material. As another suggestion, Teachers should also be careful about ethical issues when they facilitate ICT resources for their professional development. Teachers should be careful especially with their sharing. Ministry of education had rules about the privacy and teachers needed to be careful about them. They needed to pay attention to preserve the privacy of their students and institutions. They also needed to be careful about plagiarism. The following statement was indicative of what was meant:

> *Teachers should be careful in their posts especially at social media. Some teachers share their students' videos. they need to be warned because they can face with legal problems in the future as Ministry of National Education published a circular and it is illegal to share students' videos or pictures. (Participant 8, Male, High School Level)*

Participants also mentioned suggestions directed to administrators. The most prominent suggestion was about the necessity of ICT training. Nearly all of the interviewed teachers stated that it would be better if they learned more about different uses of ICT resources. they were willing to learn new and better ways of using technology. Teachers believed

that using technology would increase students' motivation and thus, learning. Some of the teachers stated that even if they had the basic ICT skills, they needed trainings to use advanced applications such as Corel Draw in order to produce their own designed and drawn material. The following statements provided clear examples of this situation:

We don't have smartboard at school for now. But one day we may have it and I want to have information about how to use this Fatih Project at schools. And I am sure if I know, if I have information enough for this Project and we have opportunity to use it, the motivation of the students will be more, I know this. (Participant 2, Female, Primary Level)

First, I thought I do not need it, but then I thought yes, I need to be inform about new ICT (like webinars, open badges etc. I searched open badget but I could not understand how to facilitate it. (Participant 6, Male, Secondary Level)

Teachers also stated that technological materials should be improved. Some of the teachers indicated that they had interactive white boards or tablets but the materials which were suitable to these devices were limited. One of the teachers remarked that they used Eba at school but the materials of it needed to be improved and varied to address students' interests. In addition, teachers suggested that technology infrastructure of the school should be improved. Some of the teachers indicated that teachers had the Internet connection problems at schools and technical conditions affected their conducting digital lessons. Moreover, some of the schools still did not have interactive white boards or computers in the classroom. It was stressed by the participants that teachers' motivation to use ICT resources was restricted by the technological facilities of the schools. Therefore, technology infrastructure of the schools should be improved.

CHAPTER 5

DISCUSSION AND CONCLUSION

Within the scope of this chapter, results of the study are discussed and interpreted regarding the previous studies with respect to research questions respectively. In addition, both qualitative and quantitative data collected during the study are triangulated and discussed. Limitations of the study and suggestions for further studies are also presented in this chapter.

5. 1 Findings and Discussion

Results of the study indicated that teachers were using ICT resources actively for professional development purposes. In addition, promoting and inhibiting factors affecting teachers' use of ICT resources were indicated. Moreover, teachers remarked suggestions to use ICT more efficiently for teacher professional development. Overall results of the study were given at Table 23.

Table 23: Overall Results of the Study

	Prominent Codes	**f**
ICT resources	Smartphones	48
	Educational Websites	36
	Facebook Groups	31
	Forums	29
	YouTube	28
	Computers	25
	Educational Databases	13
Purposes of ICT use	To learn from other teachers' experiences	9
	To prepare classroom materials	8
	To interact with other teachers	4
	To join webinars and online courses	4
	To follow updated information	3

Table 23: Overall Results of the Study (continued)

Promoting factors	Increasing the motivation of students	55
	Increasing creativity in teaching	47
	Developing teaching skills	46
	Staying up to date	45
	Preparing class activities	42
	Reaching resources	35
	Interacting with others	32
Inhibiting factors	Slow internet connection	23
	Technical problems	18
	Limited number of ICT training	10
Suggestions	Use ICT actively	34
	Stay up to date via ICT	24
	Be curious and eager to benefit from ICT	23
	ICT training is necessary	19
	ICT training is necessary	16

Results indicated that participants' most prominent ICT resources facilitated for professional development purposes were Facebook groups, forums, YouTube, educational websites, educational databases, smartphones, and computers. Participants' most prominent purposes of using these resources were to learn from other teachers' experiences, to prepare classroom materials, to interact with other teachers, to join webinars and online courses and to interact with other teachers. Participants also stated inhibiting and promoting factors that affected their use of ICT resources for professional development purposes. Most prominent promoting factors were increasing the motivation of students, increasing creativity in teaching, developing teaching skills, staying up to date, preparing class activities, reaching resources, and interacting with others. Most prominent inhibiting factors were slow internet connection, technical problems, and limited number of ICT training.

Participants also stated suggestions to use ICT resources more effectively for professional development purposes and most prominent ones were use ICT actively, stay up to date via ICT, be curious and eager to benefit from ICT, collaborate with other teachers through ICT and ICT training is necessary.

5.1.1 Discussion in relation to demographic information of participants

Demographic information of participants was taken to analyze the results better. Findings showed that nearly all the participants had knowledge about how to use the Internet. Shin and Son (2007) stated that people used the Internet on daily basis even without noticing it. In addition, majority of the participants used the Internet either 11-20 or more than 21 hours in a week. Tella et. al. (2007) found out in their study that majority of the participants accessed ICTs between 11-15 hours in a week and few of the participants accessed more than 21 hours in a week. It was also found out that the number of participants who took a very useful ICT training and who did not were nearly the same.

5.1.2 Discussion in relation to research question 1 (To what extent do EFL teachers make use of ICT resources, especially the Internet, for overall professional development, practices at classroom level and collaboration with others?)

To answer the research question, a questionnaire was conducted as it was stated previously. Participants' responses with respect to the use of the Internet for professional development purposes were taken through Likert type items of the questionnaire. Findings revealed that participants facilitated ICT resources, especially the Internet, for overall professional development, practices at classroom level and collaboration with others to great extent. The study of Ibieta et. al. (2017) also found out that teachers facilitated ICT resources for teaching practices, professional development purposes and collaboration with other educators all around the world. Moreover, Alhabahba and Mahfoodh (2016) studied English teachers' use of the Internet for self-directed professional development and found out that most of the teachers used the Internet to develop themselves professionally, to prepare lessons and to collaborate with others to great extent.

Results suggested that participants' most prominent way of using ICT resources was for practices at classroom level. They facilitated ICT resources for a variety purposes for lesson preparation and presentation. The results of the study of Ibieta et. al. (2017) also indicated that teachers used ICT resources more frequently outside of the classroom for class presentation. Participants stated that they used the Internet to present creative works, to search exercises and knowledge and to find materials. The study of Shin and Son (2007) mentioned that with the developments technology in recent decades, English teachers became interested in using ICT resources to present more effective and creative ways of teaching. In addition, the study of Chylinsky and Hanewald (2009) indicated that newly emerging technologies showed a great premise for teachers to reach authentic and different teaching materials. Moreover, Tella et. al. (2007) stated that majority of the participants used ICT resources to make the lessons more interesting. Teachers also used the Internet to read academic articles for improving their teaching practices.

Second common type of activity through ICT resources, especially the Internet, was for overall professional development. Results indicated that teachers facilitated the Internet for their overall professional development. In contrast to study results, the study of Mann (2005) remarked that most of the EFL teachers did not attend professional development activities by themselves. Majority of the professional development activities that teachers attended were obligatory in-service seminars or workshops. However, results showed teachers agreed that they used the Internet for career and promotion purposes, improving teaching skills and gaining motivation. They also facilitated the Internet to learn new skills, latest developments and grow professionally. Teachers also shared their ideas and thoughts with other teachers through ICT. Parallel to the study findings, Charalambous and Ioannou (2008) also stated that teachers were generally motivated to use ICT resources for professional development purposes. Compatibly, the results of the study of Ibieta et. al. (2017) showed that half of the participant teachers looked for professional development opportunities on the Internet. The study indicated that teachers facilitated ICT resources for different purposes to develop themselves professionally especially outside of the classroom. In addition, Krutka and Carpenter (2016) conducted a study

about the use of a social media platform (twitter) by teachers. The study dealt with teachers' use of this platform for professional development purposes, communication and classroom activities. The results indicated that teachers' most common activity was for professional development rather than for communication and classroom activities. Moreover, Mushayikwa (2013) stressed that teachers used ICT resources for their professional needs. They reached the materials that could be difficult otherwise.

Participants also used ICT resources for collaboration with others in great measure but when compared to other practices, it was less frequent. Teachers agreed that they benefited from the Internet to communicate with other teachers, exchange and search information. They got feedback from others and they received professional support. They also collaborated with others, learned new information and shaped their own ways of teachings. Results highlighted that teachers also gave support to other teachers but when compared to other practices of teachers, it was less frequent. The results of OECD (2009) indicated that the most common professional development activity among teachers was informal communication with others to improve their teaching practices. Nearly all of the participant teachers mentioned that they interacted with other teachers to improve their teaching. In addition, Ibieta et. al. (2017) stated in their study that less experienced teachers used ICT communication tools more frequently than experienced teachers to develop themselves professionally and to improve student teacher interaction.

5.1.3 Discussion in relation to research question 2 (Which ICT resources do EFL teachers use for self-directed professional development (SDPD)?)

To answer the research question, open- ended questions of the questionnaire and interview results were analyzed. Teachers stated the ICT resources that they facilitated for professional development purposes. The findings of the open-ended questions and interviews results were compatible with each other. Results indicated that teachers used various software and hardware ICT resources for their professional development. Software ICT resources were evaluated under the category of social networking platforms and educational platforms.

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Findings showed that participants' most prominent social media platforms that they facilitated for professional development purposes were Facebook groups, forums and YouTube. They also used Pinterest, blog, twitter, Instagram, Academia.edu and Research gate to improve themselves professionally. Compatible with the results, Ross (2013) indicated that social media provided teachers easy access to resources, audiences and communication opportunities and therefore, it was preferred by teachers as a professional development tool. Moreover, the study of Savas (2013) indicated that blogs were effective instructional tools in increasing the interaction, collaboration and autonomy of pre-service English teachers. In addition, the study of Marcia and Garcia (2016) suggested that teachers were willing to use technological devices and social media platforms for professional development purposes. Teachers were motivated to use these platforms to share knowledge, get feedback, improve students' performances, attain new resources and be in contact with other teachers. Ross et. al. (2015) and Krutka and Carpenter (2016) studied teachers' use of one of the social media platforms called "twitter" and it was found out that twitter was used by teachers for professional development purposes via collaborating and networking properties. In addition, the study of Benko et. al. (2016) indicated that English teachers felt a sense of belongingness among its users in an authentic way via twitter. Moreover, Khan (2015) studied English teachers' use of blog as a professional development tool and expressed that teachers benefited from blogging for professional development purposes.

Teachers also facilitated various educational platforms for professional development aims. Most common ones were educational websites and databases. Findings indicated that teachers especially used these resources to prepare classroom activities and to investigate information. Other educational platforms mentioned by teachers were educational applications, the Internet resources, online courses and quizzes, educational games, Morpha campus, online dictionaries, online projects and webinars. Interestingly, the study of Meskill et. al (2006) found out that the most commonly used ICT software by teachers was word processing. Among other ICT resources that teachers facilitated, it was mentioned applications, online databases, video, multimedia and portfolio makers.

Findings also showed that teachers also used hardware ICT resources for professional development purposes. Most commonly used one, pronounced by teachers, was smartphones. Results indicated that teachers used smartphones for both inside and outside of the classroom as a tool to improve themselves professionally. Study findings highlighted that teachers used smartphones not just as a communication tool but for a variety of different purposes such as searching information, using applications for educational purposes, playing educational games or for listening activities in classroom setting. Parallel to the study results, Savas (2012) stated that smartphones were effective tools and gave possibility to teachers to record digital videos of micro teachings, edit and share them on various social media platforms. In addition, the study of Anwaruddin (2016) investigated teachers' use of mobile devices for professional development and found out that they were effective in supporting teachers professionally. Results also showed that teachers used computers and interactive white boards as ICT resources. consistent with the results, Tella et. al. (2007) studied secondary's school teachers' use of ICT resources and results showed that teachers used computers, camera, projector, scanner and video equipment as an ICT resource.

5.1.4 Discussion in relation to research question 3 (How do EFL teachers use ICT resources for SDPD?)

To answer the research question, participants were asked about how they used ICT resources for their self-directed professional development during the interviews as stated before. Findings showed that teachers facilitated ICT resources for professional development, teaching practices, collaboration and evaluation.

Results indicated that teachers also used ICT resources outside of the classroom to improve themselves professionally in a self-directed way. Teachers joined webinars and online courses, downloaded articles and participated online projects. They also updated their knowledge and improved their teaching skills. Moreover, teachers also learned about ICT tools through searching via ICT resources. Wu and Chen (2008) indicated in their study that teachers facilitated online learning environments mostly to learn up to date

information about their fields and professional needs. In addition, Ibieta et. al. (2017) stated in their study that teachers used ICT resources both inside and outside of the classroom for different purposes. Results indicated that teachers used ICT resources outside of the classroom to search resources, to develop themselves professionally, to interact with other educators all around the world and to get support for professional needs. They also used ICT resources inside of the classroom to facilitate teaching practices.

Teachers also used ICT resources for teaching practices both inside of the classroom and outside of the classroom. Outside of the classroom, teachers prepared classroom materials through ICT resources. Inside of the classroom, teachers made students watch video related to the topic and they played interactive educational games via ICT resources. In the same way, the study of Warren (2005) also stated that ICTs were used by teachers for lesson preparation, lesson presentation and working with individuals or groups on screen. In addition, The study of Hinostroza et. al. (2016) remarked that teachers used ICT resources to prepare for the lesson, to communicate with colanguages and students, to practice teaching.

Another purpose of teachers to use ICT resources was for collaboration. Findings revealed that teachers interacted with each other and learned from others' experiences as compatible with the study results of Ellis et. al. (2015), Reichert and Mouza (2014), Ross et. al. (2015), Mills (2014) and Alhabahba and Mahfoodh (2016). Additionally, results indicated that teachers also used ICT resources for testing purposes. They facilitated educational applications to evaluate students.

5.1.5 Discussion in relation to research question 4 (What are the factors that promote/ inhibit EFL teachers' use of ICT for SDPD?)

To answer the research question, results of the questionnaire, open-ended questions and interview results were evaluated and it was seen that the results were compatible with each other. Findings indicated that there were both promoting and inhibiting factors affecting teachers' use of ICT resources for professional development. However, the results showed

that promoting factors outweighed inhibiting factors. Teachers were mostly motivated to use ICT resources to develop themselves professionally. Consistent with the study results, Malinina (2015) and Flanagan and Shoffner (2013) stated that even if teachers thought that there were some factors that inhibit English teachers to use ICT resources, promoting factors outweighed inhibiting factors. Technology increased students' higher order thinking skills, motivation and engagement when used appropriately.

Most of the teachers agreed that they were motivated to use online educational resources for a variety of different purposes. They stayed up-to-date with latest teaching practices in language education, improved their teaching practices, increased students' motivation and learnings and reached different resources through the Internet. Teachers also expressed many promoting factors under the category of contribution to students' learning, teacher professional development, resource and collaboration among teachers.

Findings revealed that using ICT resources increased creativity in teaching, motivation of students and students' learning. Tella et. al. (2007) stated in their study that majority of the participants agreed that ICT made the lessons more interesting. In addition, teachers perceived ICTs as being easy and useful in teaching and learning activities. They stayed up-to-date with latest teaching practices in language education, improved their teaching practices, increased their students' motivation and learnings. In addition, Tella et. al. (2007) stated in the study that teachers viewed ICT as beneficial to make the lesson more interesting and effective for students. Teachers also stated that they used ICT resources for overall professional development. Teachers developed their teaching skills and stayed up to date. Teachers also expressed that they were intrinsically motivated to use ICT resources. They joined webinars and online courses, found solutions to their professional problems with time and place flexibility. Consistently, Mushayikwa and Lubben (2008) stated two promoting factors that motivated teachers to use ICTs for professional development purposes. These were professional and classroom advantages. Teachers had a chance to develop themselves professionally and to be better prepared for teaching practices through ICT.

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Teacher also expressed that they reached variety of resources through ICT. Teachers both investigated resources for classroom teaching practices and overall professional development purposes. Teachers thought that using ICT resources was time-saving, easy and practical. The study of Warren (2005) indicated some of the advantages of using the Internet. They were limitless internet resources, opportunities to communicate easily, motivating characteristics, examples of language use and good harmony with other ICT resources. In addition, Beach (2017) found out that participants were motivated to use ICT resources because of easy accessibility properties of the Internet resources. Participants also expressed that they learned from other teachers' experiences through ICT resources. Moreover, Krutka and Carpenter (2016) found out that teachers were motivated to use ICT resources as they could use whenever they wanted and most of them were free.

Teachers were also motivated to use ICT resources to interact with other teacher in an easy way and to learn from other teachers' experiences. Parallel to the study findings, Rodesiler (2014) suggested that teachers viewed online learning environments as beneficial. Teachers stated that they had time flexibility in these environments and they could communicate with other teachers for professional purposes. In addition, Hoesein (2015) stated that students' involvement was increased, teachers developed themselves professionally and they learned from other teachers' experiences through an online professional development program. Harwell (2003) also indicated a few promoting factors to use ICT resources for professional development purposes. It was stated in the study that online professional development practices presented teachers opportunities to collaborate with others at any time and place they wanted.

Findings also revealed that there were factors that inhibited teachers to use ICT resources for professional development purposes. Results indicated that there were both external and internal factors that inhibited teachers to use ICT resources and external factors outweighed internal factors. Teachers mentioned more external factors compared to internal factors. Consistently, Ertmer (1999) mentioned two types of barriers affecting teachers' use of technology for teaching and learning practices. The first one was external

factors such as availability of technological resources, training or support ensured by school administrators etc. The second one was internal factors including teachers' confidence to use technology, their beliefs about the use of ICT for teaching and learning etc. The study of Meskill et. al. (2006) also mentioned some external and internal impediments to use ICT resources in classroom settings. These were lack of training, the Internet connection problems, teachers' reluctance to use them, time and school technology infrastructure.

Most pronounced external factor was slow internet connection. Teachers mentioned that they were distracted by the slow internet connection and it demotivated teachers to use the Internet. Teachers also remarked that they experienced technical problems and they needed trainings to use them effectively. In addition, technology infrastructure of the schools was viewed inadequate by teachers to use ICT resources. Paid websites and inappropriate materials found on the Internet was also stated by teachers as inhibiting factors. Parallel to the findings, Warren (2005) also stated that teachers were willing to use ICT for teaching and learning practices but they lacked technical support and equipment. In addition, it was mentioned in the study that there were unsuitable materials on the internet and teachers needed to be careful in selecting materials. Afshari et. al. (2009) referred some of the inhibitors of the use of ICT resources as teachers' lack of technology experience, technical problems, time and lack of training and experts to learn how to use ICT tools. Tella et. al. (2007) stated that even if more than half of the participants stated that they had computers at their schools as an ICT resource but none of them mentioned the Internet connection presence at their schools. In addition, it was stated that the most common inhibiting factor mentioned by participants was lack of teacher expertise in using ICT resources.

Additionally, Mumtaz (2000) stressed in the study that many schools were reluctant to support the use of technologies for teaching and learning practices and therefore, technology infrastructure of the schools were inadequate. In addition, many schools did not supported teachers to develop themselves professionally to use technologies more

effectively. Tella et. al. (2007) studied secondary level teachers' ICT usage and found out that teachers did not have the Internet access at their schools and it inhibited teachers' effective use of ICT resources. In addition, most of the participants needed ICT training, support and resource to use ICT resources effectively for professional development aims. Moreover, the study of Johnson (2016) investigated teachers' use of ICT resources in a qualitative study and found out that the school did not have required technology infrastructure and teachers needed support to use ICT effectively.

Findings also suggested internal factors that inhibited teachers to use ICT resources. Teachers' and students' lack of motivation was one of the mentioned ones. Some of the participants' perceptions towards the use of technology was negative and sometimes, even if teachers were motivated to use them, students were unwilling or demotivated. The study of Shifflet and Weilbacher (2015) dealt with teachers' attitudes towards technology and their actual classroom practices and results indicated that lack of support had more strong influence on teachers' use technology rather than teachers' motivation. Participants also viewed ICT resources as time consuming and they thought that it was difficult to choose the right material among others. Malinina (2015) also mentioned some inhibiting factors that affected English teachers' use of ICTs as lack of time to use technologies and inappropriate materials found on the Internet. In addition, the study of Hısmanoglu (2012) indicated that teachers viewed technologies as time consuming, complex and hard to manage. Consistently, among the inhibiting factors of the use of ICT resources, Kaliban and Khan (2011) mentioned the Internet connection problems, time constraints and some ethical problems. And, Khan (2015) studied English teachers' use of blog as a professional development tool and concluded that teachers had difficulty in sparing time to use blog efficiently.

5.1.6 Discussion in relation to research question 5 (What are EFL teachers' suggestions to use ICT resources for professional development?)

To answer the research question, open-ended questions of the questionnaire and interviews were evaluated. Findings showed that teachers mentioned suggestions to both

teachers and administrators to use ICT resources more effectively for professional development purposes.

Most commonly pronounced suggestion directed to teachers was that teachers should use ICT resources actively. Participants believed that teachers should benefit from the opportunities of using ICT resources. Participants also suggested that teachers should stay up to date with ICT resources and they should use these resources for teaching practices. The study of Luke and Britten (2007) and Baran and Cagıltay (2006) also suggested that to use technology effectively in language teaching classrooms, teachers needed to be exposed to technological tools actively. They needed to practice them besides learning how to use them theoretically. In addition, Mumtaz (2000) remarked that teachers needed to be persuaded that using ICT resources for teaching and learning practices would make a big difference in their professional practices. parallel to study findings, Webster and Son (2015) dealt with English teachers' use of technology for professional development purposes and results showed that teachers needed to update their teaching and learning ways and realize the realities of current technological world. They needed to reassess their professional practices. In addition, the study of Johnson (2016) investigated teachers' use of ICT resources and it was suggested in the study that teachers needed more support to use technology in their teachings.

Participants also suggested to teachers that they should be curious and eager to benefit from ICT resources and they should collaborate with other teachers. It was also suggested that teachers should use social media platforms for professional development purposes. The results of the study of Dean and Silverman (2015) suggested that there was a need for more formal and informal online communities to support teachers professionally. Another suggestion was that teachers should be careful in selecting materials through the Internet. They needed to evaluate the resources whether it was suitable for a specific context and purposes.

In line with study results, Ibieta et. al. (2017) suggested in their study that teachers' use of ready-made internet resources needed to be investigated. It was stressed in the study

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that readymade materials could limit teachers' creativity and these materials could be inappropriate for a specific context and students' needs. The study of Tella et. al. (2007) suggested that to ensure teachers' use of ICTs, policies should be developed oriented to teacher trainings and teacher professional development. In addition, it was found out that even if participants felt confident in using ICT resources, they needed ICT professional development to benefit more from the opportunities of ICTs and to improve themselves in using technological tools. Additionally, use of ELT based websites, webinars, online courses, subscribing online publications related to ELT and flipped learning was also suggested by participants. It was remarked that teachers should be brave to use ICT resources and they should benefit from them. The study of Hughes et. al. (2016) suggested that to ensure teachers' effective use of ICT resources, consistent and systematic models were necessary to develop their future teaching practices. In addition, the study of Mushayikwa (2013) suggested that more flexible teacher professional development models that would give teachers opportunities to decide the ways and methods of their professional development practices were necessary. Participants also suggested teachers to be careful about ethical issues. They should protect the privacy of students when they made sharing via ICT.

Besides suggestions to teachers, participants also mentioned suggestions which was directed to administrators and policy makers about the use of ICT for professional development of teachers. Most prominent suggestion was that ICT training was necessary for teachers. Participants indicated that even if teachers knew the basic properties of ICT resources, it would be beneficial to learn more about different ICT resources and their usages. Parallel to the study findings, the study of Hubbard (2008), OECD (2009), Ali et. al. (2013) and Hasibuan (2013) remarked that ICT training would be beneficial for teachers to realize the potentials of using ICT resources for teaching and learning practices. In addition, the study of Savas (2014) also indicated that lack of training about how to use ICT resources might inhibit teachers to use these resources. Teachers also suggested that technology infrastructure of the schools should be improved to benefit from

ICT resources, a new curriculum with ICT integration was necessary and reaching resources should be free.

5.2 Pedagogical Implications of the Study Results

By taking into consideration the findings of the study on English teachers' use of ICT resources for their professional development, some implications can be drawn to benefit more from ICT resources for self-directed professional development of English teachers.

To start with, teachers were active users of the Internet and resources taken from there. Teachers benefited from ICT resources for a variety of different purposes ranging from classroom preparation and overall professional development to communication with other teachers. Teachers facilitated ICT resources for their self-directed professional development to great extent and they thought that using these technologies made their profession easier and more effective. These technologies provided teachers opportunities to reach variety of resources, to improve their teaching abilities and skills, to interact with other teachers and learn from their experiences and to expand their knowledge. It can be said that ICT resources were beneficial for teacher professional development facilities and teachers were already aware of that fact and they used these technologies for their self-directed professional development practices.

As an ICT hardware resource, teachers mostly preferred smartphones, computers and interactive white boards. The results indicated that todays' smartphones were not only used for interaction but for variety of different purposes such as video player, computer, MP3 player etc. by teachers for professional development purposes. Teachers facilitated smartphones both inside and outside of the classroom for teaching and learning practices. In addition, the Internet provided teachers resources and opportunities for professional development. Teachers joined online courses and webinars, searched resources and interacted with others.

It was also extracted from the results that there were many factors that either promoted or inhibited teachers to use ICT resources for professional aims. Most of the inhibiting

factors resulted from external reasons. Teachers were inhibited to use ICT resources when they could not reach required opportunities to use these technologies effectively. Slow internet connection and technical problems were among the most encountered problems that teachers faced. However, teachers mostly mentioned promoting factors rather than inhibiting factors, indicating that teachers were in favor of using ICT resources and they had more motivating factors to facilitate them. Study enlightened that teachers were positive towards the use of ICT resources and they facilitated technology as much as they could within the scope of opportunities. It is implied that teachers are positive towards ICT resources but inhibiting factors needed to be discarded to benefit more from ICT resources more effectively for teacher professional development practices. In addition, it is also deduced from the study that using ICT resources increased teachers' and students' motivation and increased the effectiveness of teaching and learning practices.

It was also implied in the study that teachers expected support to use ICT resources more efficiently. Teachers were willing to take trainings to benefit more from ICT resources. Results remarked that even if teachers knew how to use the Internet and other ICT resources, they were willing to take trainings to benefit more from technology and to improve their knowledge. In addition, teachers expected from administrators and policy makers support for technology infrastructure and the Internet connection of the schools. To conclude, results of the study enlightened that teachers benefited from ICT resources for a variety of professional development purposes and facilitated ICT resources both inside and outside of the classroom to develop themselves professionally.

5.3 Limitations of the Study and Suggestions for Further Studies

The data of the study was collected through an online questionnaire and follow up interviews with voluntary participants. As a sampling procedure, snowball sampling was used and participants of the study were reached through an online questionnaire. Therefore, certain populations are less likely to have the Internet access and to respond to the online questionnaire. Participants of the study were already users of the Internet and results should be evaluated accordingly. In addition, as it was difficult to reach in-service

English teachers working at different levels and schools, snowball sampling was used for the selection of participants. Therefore, results were not representative of the entire population. Moreover, interview questions were sent to teachers right before the interviews to make them ready for the semi-structured interviews. However, as interviews were realized in a semi-structured way, new questions were added to the interviews during the interview processes.

As a suggestion for further studies, longitudinal studies are recommended to investigate English teachers use of ICT resources for their professional development. Classroom observations can be realized to observe teachers' use of ICT resources. In addition, online communities that teachers participate and collaborate with each other for professional development purposes can be observed and analyzed phenomenally. Moreover, teachers' use of ready-made materials taken from the Internet can be investigated more deeply with respect to the appropriateness of the materials and adaptations of these materials for a specific context of teaching setting. Additionally, teachers' use of ICT resources with respect to different demographic variables such as the regions they live, their levels of teachings or age of participants might show differences. Therefore, studies can be conducted to investigate teachers' use of ICT resources for professional development purposes with respect to different variables. And lastly, students' perceptions can be taken to investigate whether teachers' facilitating ICT resources makes a difference in their learnings and to what extent teachers incorporate ICR resources to their teaching processes.

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QUESTIONNAIRE on TEACHERS' USE of ICT RESOURCES, ESPECIALLY THE INTERNET, FOR SELF-DIRECTED PROFESIONAL DEVELOPMENT

This questionnaire aims to investigate your **ICT (information and communications technology)** use, especially the Internet, for your **self-directed professional development (SDPD)**. SDPD refers to *"teachers' voluntary and deliberate efforts to develop themselves in areas that they perceive themselves to be limited or lacked"* (Mushayikwa, 2013). Through this brief survey, your answers will be helpful in enhancing our understanding of your internet usage, motives to use online educational resources, and professional development practices. Your response will only be used for survey purposes. In case you have any questions regarding the survey, please contact Gamze Erdem at erdem.gamze@metu.edu.tr .

DEMOGRAPHIC INFORMATION

1) The level you teach:

□ Primary level(1-4)   □ Secondary level(4-8)

□High School level(9-12)   □ University level

2) Gender: □ Male   □ Female

3) Age:

□ 21-24   □ 25-34   □ 35-44   □ 45-54

        □55+

4) Years of Experience:

□0-2   □ 3-5   □ 6-10   □ 11-15   □ 16+

5) Department you graduated:

□ English Language Teaching (ELT)

□ English Language and Literature (ELL)

□ American Language and Literature (ALL)

□ Linguistics (LIN)

□ Translation and Interpreting (Tr&In)

□ OTHER(Germen&French Language Teaching…etc.)

(...)

6) Education: □ BA   □ MA   □ PhD

Other certificates/Qualifications:

8) Please select the answer that best describe your knowledge of internet usage.

Please tick (√) where best represent your knowledge of internet usage:

Don't know how to use □

No time to learn about the Internet   □

No time to use □

No interest at all   □

I know how to use the Internet □

9) Overall usage of the Internet in a week (by hours)

1-4 □

5-10 □

11-20 □

More than 21 □

10) Did you receive any ICT (information and communications technology) training?

Did not receive ☐

Received a hardly useful one ☐

Received a very useful one ☐

Survey of online professional development practices

The following statements are questioning your motives to use online educational resources. Please indicate the degree to which you agree or disagree with the following statements. 1 is being strongly disagree and 5 strongly agree. We shall remind you that there are no correct or wrong answers to the following statements.

	Strongly disagree	Disagree	Agree	Strongly agree
Q1: "I seek online educational resources because…":	1	2	3	4
1- I build my own teaching prestige with resources that are rich with media content	1	2	3	4
2- I stay up-to-date with latest teaching practices in language education	1	2	3	4
3- They contribute to my own mastery of subject matter being taught in the Turkish context.	1	2	3	4
4- They make my students excited about a topic	1	2	3	4

	Strongly disagree	Disagree	Agree	Strongly agree
5- They maximize creativity in language learning classroom experience	1	2	3	4
6- They provide low cost or free resources compared to textbook costs used in my class	1	2	3	4
7- I can select, modify, and add content that meet the specific needs of my students.	1	2	3	4
8- They allow me to do things that I would not have done using only the textbook	1	2	3	4
9- My colleagues recommended to do so in order to make my job easy	1	2	3	4
The Internet's contribution to the overall professional development	Strongly disagree	Disagree	Agree	Strongly agree
1- I use the Internet to expand experiences for career/promotion purposes	1	2	3	4
2- I use the Internet to improve teaching skills	1	2	3	4
3- I use the Internet to gain motivation	1	2	3	4
4- I use the Internet to grow professionally	1	2	3	4
5- I use the Internet to learn new skills related to ELT	1	2	3	4

	Strongly disagree	Disagree	Agree	Strongly agree
6- I use the Internet to share ideas/views with other teachers	1	2	3	4
7- I use the Internet to facilitate thinking abilities	1	2	3	4
8- I use the Internet to prepare oneself for innovation	1	2	3	4
9- I use the Internet to be aware of the latest developments in ELT	1	2	3	4
10- I use the Internet to remain interested in teaching	1	2	3	4
Q3: The Internet's contribution to English language Teachers' practices at classroom level	Strongly disagree	Disagree	Agree	Strongly agree
1. I use the Internet to present creative works	1	2	3	4
2. I use the Internet to be involved in a world of information	1	2	3	4
3. I use the Internet to find materials	1	2	3	4
4. I use the Internet to experience creative works	1	2	3	4
5. I use the Internet to learn about variety of topics	1	2	3	4
6. I use the Internet to read academic articles from online journals	1	2	3	4
7. I use the Internet to search information	1	2	3	4

	Strongly disagree	Disagree	Agree	Strongly agree
8. I use the Internet to find exercises	1	2	3	4
Q4: Teachers practices of the Internet to collaborate with others	Strongly disagree	Disagree	Agree	Strongly agree
1. I use the Internet to develop communication skills with others	1	2	3	4
2. I use the Internet to exchange information, knowledge and stories with teachers	1	2	3	4
3. I use the Internet to seek information from others	1	2	3	4
4. I use the Internet to develop thinking skills with others	1	2	3	4
5. I use the Internet to share feedback by posting messages to others	1	2	3	4
6. I use the Internet to develop a strong base for learning	1	2	3	4
7. I use the Internet to receive professional support from teachers	1	2	3	4
8. I use the Internet to find lesson plans from others	1	2	3	4
9. I use the Internet to increase	1	2	3	4

communication between teachers				
10. I use the Internet to give professional support to teachers	1	2	3	4
11. I use the Internet to combine new opinions with my own.	1	2	3	4
12. I use the Internet to enjoy when collaborating online with others	1	2	3	4

OPEN-ENDED QUESTIONS

1. Do you use ICT resources (the Internet, smart phone, forums, social media etc.) for your professional development?

    a.   If yes, what resources do you use and how do you use?

    …………………………………………………………………

    b.   If no, why not?

    …………………………………………………………..

2. In what ways are ICT resources useful for your professional development? Please explain based on your experience.

    …………………………………………………………………

3. What was your best experience of using ICT for your professional development?

    ………………………………………………………………….

4. Have you experienced any difficulty(ies) in using ICT for your professional development? If yes, explain briefly?

    …………………………………………………………………..

5. Do you have any suggestions to use ICT for professional development of English teachers? Please, explain based on your experience.

    ……………………………………………………………….

Any other comments:

    ……………………………………………………………

    ***If you are volunteer to participate in the interview, which is the second phase of this study, please fill in the blanks below.

E-mail : …………………………………….

Thank you very much for your time and suggestions.

APPENDIX B: INTERVIEW QUESTIONS

1. Do you use ICT resources (the Internet, smart phone, forums, social media etc.) for your professional development?

   If no, . 2. What are the reasons that inhibit your use of ICT for your professional development?

   If yes,

2. Which resources do you use?
3. How do you use these ICT resources for your professional development?
4. Have you experienced any difficulty(ies) in using ICT for your professional development?
   a. If yes, what are those difficulties? why-how?
5. Do you use social media for your professional development?
   a. If yes, what kind of support do you receive or give?
   b. If no, why don't you use?
6. What are the advantages of using ICT for your professional development?
7. Do you feel competent in using ICT resources for your professional development?
   a. If yes, how could you manage this?
   b. If no, why do you think so?
8. Do you need any training to use ICT more effectively for your professional development?
   a. Yes, in what fields do you need it?
   b. No, why don't you need?
9. Except training, what kind of support do you need to use ICT more effectively for your professional development?
10. Do you have any suggestions to use ICT for professional development of English teachers? Explain please.

APPENDIX C: AN EXAMPLE OF COLOR CODING FROM

INTERVIEWS TRANSCRIPTS

Promoting Factors

Students get motivated and they become more excited and curious I feel more competent on using digital sources. I can discover new ways of teaching. I can communicate with other teachers teaching english all around the world that's why we can share good practices. Thanks to the info sharing, I can develop my teaching materials archive.

Inhibiting factors

Sometimes about blogs, I don't know why but I get easily bored and can't focus on the topic. When ICT is boring, I cannot focus. The more the ICT interactive, the more I enjoy. Especially webinars are very interactive, you know they ask question and the teachers give answers.

Suggestions

Especially regarding technical problems such as slow internet, an unexpected electricity cut or charging problems with the netbook. I just need some training to make use of advanced applications such as Corel Draw in order to produce my own designed and drawn materials.

Teachers need to follow ICT resources providing rich sources of information and valuable ideas for teaching effectively. They need to be technologically literate and keep track of recent applications and innovations in their field. This is only possible with active use of ICT. CPD (continuing professional development) is essential to providing a better education in the century of advances and innovations .

APPENDIX D: TURKISH SUMMARY OF THE STUDY

Bu çalışma, Türkiye' de ilkokul, ortaokul, lise ve üniversite seviyelerinde görev yapan 184 hizmetiçi İngilizce öğretmenlerinin öz denetimli mesleki gelişimleri için bilgi ve iletişim teknolojileri kullanımını araştırmak amacıyla yürütülmüştür. Çalışmanın verileri anket ve yarı yapılandırılmış görüşmeler aracılığıyla toplanmıştır. Çalışmada kullanılan ölçek Alhabahba ve Mahfoodh (2016)' dan izin alınarak çalışma amacına uygun olarak adapte edilmiştir. Nicel veriler için kullanılacak olan Likert tarzı ve açık uçlu sorulardan oluşan ölçek, online olarak hazırlanarak katılımcılara ulaştırılırmıştır. Araştırmanın ikinci aşamasında gönüllü katılımcılardan seçilen 12 İngilizce öğretmeniyle telefon aracılığıyla yarı yapılandırılmış görüşme yapılmıştır ve ses kayıtları alınmıştır. Toplanılan veriler aracılığıyla, İngilizce öğretmenlerinin bilgi ve iletişim teknolojilerini mesleki gelişimleri için hangi amaçlarla ve ne derece kullandıkları, kullanılan bilgi ve iletişim teknolojileri, öğretmenlerin bu teknolojileri kullanmasını motive eden ya da engelleyen faktörler ve katılımcıların bu teknolojilerin öğretmen mesleki gelişiminde daha etkili kullanımına yönelik önerileri araştırılmıştır.

Öğrenci başarısında öğretmenler çok etkin bir rol oynamaktadır. Yapılan çalışmalar öğretmenlerin mesleki anlamda kendilerini geliştirmelerinin öğrenci başarısı üzerine olumlu etkileri olduğunu göstermiştir. Bu nedenle öğretmen mesleki gelişimi son derece önemlidir. Öğretmen mesleki gelişimi sadece kısa zamanlı kurslar, seminerler ve workshoplar aracılığıyla resmi olarak gerçekleştirilen etkinlikler değildir. Öğretmen gelişimi öğretmenlerin meslek hayatları boyunca devam eden ve öğretmenlerin kendilerini öğrenme ve öğretme alanlarında geliştirdiği ve öğrenci ihtiyaçlarını daha iyi karşılamak için yaptığı etkinliklerin hepsini kapsamaktadır.

Son yıllarda teknolojik gelişmelerin de etkisiyle eğitim öğretim faaliyetlerinde de değişiklikler olmuştur ve öğretmenlerin de mesleki bilgilerini devamlı güncellemeleri ve kendilerini geliştirmeleri kaçınılmaz olmuştur. Bilgi ve iletişim teknolojileri öğretmenlerin mesleki anlamda kendilerini geliştirmeleri için etkili bir araçtır. Günümüzde teknolojinin dahil olmadığı mesleki gelişim etkinliği bulmak neredeyse imkânsız gibidir. Öğretmenler birçok kaynağa kolaylıkla ulaşabilirler, çevrimiçi kurslara ve seminerlere katılabilirler ve çevrimiçi ortamlara katılarak karşılıklı etkileşimde bulunabilirler. Öğretmenlere kendilerini geliştirmeleri için ve yüz yüze iletişim dışında meslektaşlarıyla iletişim halinde olmalarına imkân sağlamaktadır. Ayrıca, bilgi ve iletişim teknolojileri istenilen zamanda ve yerde öğrenme rahatlığı sunmaktadır. Öğretmenler genellikle resmi mesleki gelişim programlara katılmak için uygun şartları sağlamakta zorlanmaktadırlar. Buna rağmen, bu teknolojilerin öğretmen mesleki gelişiminde kullanılmasına yönelik sınırlı sayıda araştırma mevcuttur. Çalışmaların çoğu öğretmenlerin de öğrenme süreçlerinin devam ettiğini göz önüne almayarak öğrencilere odaklanmaktadır. Öğretmenlerin bilgi ve iletişim teknolojilerini öz denetimli mesleki gelişimleri için kullanımları öğretmenlerin bu teknolojilerden daha verimli bir şekilde faydalanmaları için önemli bir etkiye sahiptir. Bu nedenle bu çalışma hizmetiçi İngilizce öğretmenlerin bilgi ve iletişim teknolojileri aracılığıyla mesleki gelişim faaliyetlerini araştırarak bu teknolojilerin daha etkili bir şekilde nasıl kullanılabileceğine yönelik öneriler sunmaktadır.

Öğretmenler bilgi ve iletişim teknolojilerinden (BİT) farklı amaçlardan faydalanmaktadırlar. Warren (2005) öğretmenlerin BİT kaynaklarını kullanımlarını ders öncesinde daha etkili geleneksel materyaller hazırlamak için, BİT kaynakları aracılığıyla ders öncesinde daha yaratıcı materyaller hazırlamak için, ders esnasında ortak bir bilgisayar kullanarak daha etkili öğretme ve öğrenme sağlamak için, sınıfta birkaç bilgisayar kullanarak grupça çalışmak için ve her öğrenci için bir bilgisayar ayarlayarak dersi işlemek için kullanılabileceğinden bahsetmiştir. Fakat, literatürde öğretmenlerin bu teknolojileri kullanmalarını engel olan faktörlerden de bahsedilmiştir. Öğretmenlerin BİT kaynaklarıyla öğretmedeki deneyim eksiklikleri, teknolojiyi kullanan öğretmenlere destek yetersizliği, bilgisayarı kullanan öğrencilere destek eksikliği, öğrencilere BİT kaynaklarını kullanmayı öğretecek teknoloji uzmanı

eksikliği, bilgisayar yetersizliği, programda BİT kaynaklarını etkili kullanmak için yeterli zamanın olmaması ve bu teknolojilerden faydalanmak için maddi desteğin eksikliği öğretmenlerin BİT kaynaklarını mesleki gelişimleri için kullanımlarını etkileyen faktörler arasındadır (Mumtaz, 2000). Ayrıca, Mumtaz (2000) öğretmenlerin de öğretme ve öğrenme faaliyetlerinde değişime ihtiyaçlarının olduğunun farkında olduğunu fakat bu değişimi gerçekleştirecek yeterli imkanlarının olmadığından bahsetmiştir. Bunlara ek olarak, öğretmenlerin bu teknolojilere olan tutumları da öğretmenlerin BİT kaynaklarını kullanımlarını etkileyen faktörler arasındadır. Öğretmenler BİT e karşı olan tutumları açısından olumlu tutumda olan ve öğrencileri de bu teknolojileri kullanmaya teşvik eden, bu kaynakların eğitimde kullanılmasına karşı tarafsız olan ve eğitimde teknoloji kullanımına yönelik açıkça negatif düşünen olarak üç grupta incelenebilir (Resta, 2002).

Teknolojinin kullanımının yaygınlaşmasıyla birlikte yabancı dil eğitiminde de BİT kaynakları etkin bir şekilde kullanılmaya başlanmıştır. Bu teknolojilerin yabancı dil eğitiminde kullanılmasına yönelik Bax (2003) "normalleşme" kavramından bahsetmiştir. Normalleşme bu teknolojilerin yabancı dil öğretimimde bilinçli olarak fark edilmeden faydalı bir şekilde kullanılması olarak tanımlanabilir ve normalleşmenin her zaman olacağını, her teknolojide aynı derecede olacağını, aynı süreçlerden geçeceğini ve normalleşmenin olmasının arzu edilebilir olduğu ifade edilmiştir.

Dil öğretim ve öğrenim faaliyetleri için teknoloji kullanımı bir zorunluluk değildir. Fakat, 21. yüzyıl bilgi çağının getirdiği karmaşayı düşündüğümüzde teknolojiden faydalanmadan mesleki olarak öğretmenlerin kendilerini geliştirebileceklerini düşünmek çok zordur. Teknoloji öğrenme ve öğretme faaliyetlerini destekler, dil öğretiminin yerine geçmez. Günümüz öğrencilerin büyük bir kısmı teknolojiyle iç içe yaşamaktadır ve teknolojinin getirdiği ortamlara dahil olmaktadırlar. Bu nedenle, öğretmenlerin de öğrencilerin değişen ihtiyaçlarına daha iyi hitap edebilmeleri için bilgi ve iletişim teknolojilerinden mesleki gelişimleri için faydalanmaları son derece normaldir ve gereklidir. Yapılan çalışmalar da bu durumu destekleyerek öğretmenlerin öz denetimli mesleki gelişimleri için bilgi ve iletişim teknolojilerinden faydalandıklarını göstermiştir. Purcell et. al. (2013) dijital araçların öğretmenler

tarafından hem sınıf içinde hem de sınıf dışında kullanıldığını ve öğretmenlerin bu teknolojilerden aldıkları destekten memnun olduklarını belirtmiştir.

Ne yazık ki mesleki gelişim programlarının birçoğu herkese uyar bakış açısından yola çıkarak hazırlanmaktadır. Bu programlar bağlamsal faktörleri göz önüne almadıkları için öğretmenlerin hepsine hitap edememektedir. Bu nedenle öğretmenlerin öz denetimli mesleki gelişim faaliyetlerinde bulunmaları son derece önemlidir. Öğretmenler bilgi ve iletişim teknolojileri aracılığıyla öz denetimli mesleki gelişim faaliyetlerinde bulunarak bireysel bağlamsal faktörlere uygun olarak kendilerini mesleki anlamda geliştirebilmektedirler. Song and Hill (2007) çevrimiçi ortamlarda öz denetimli öğrenmeye yönelik bir çerçeve önermişlerdir. Daha önce önerilen çerçevelerin birçoğu kişisel faktörlere ve öğrenme sürecine odaklanmışlardır fakat çevresel faktörleri göz ardı etmişlerdir. Bu çerçevede çevresel faktörler öğrenme süreci ve kişisel faktörlerle bağlantılıdır ve birbirinden etkilenmektedir.

Çalışmada son yıllarda daha yaygın kullanılmaya başlanılan karma yöntem kullanılmıştır. Karma yöntemde nitel ve nicel veriler toplanılarak birbirlerini desteklerler. Karma yöntemde hem nitel hem de nicel verilerden faydalanıldığı için araştırmacılar bu desende veri toplamada ve analizde daha dikkatli davranmalıdır. Çalışma desenine uygun olarak veriler toplanılmalı ve analiz edilmelidir. Karma yöntemde zamanlama, ağırlık, karma ve teori oluşturma aşamalarına dikkat edilmelidir. Zamanlama aşamasında araştırmacı nitel ve nicel verileri hangi zamanda toplayacağına ilişkin kararlar vermektedir. Bu çalışmada nicel veriler anket aracılığıyla toplanıp analiz edildikten sonra nitel veriler toplanmıştır. Ağırlık aşamasında nitel ve nicel verilerin çalışmanın amacına uygun olarak önem açısından değerlendirilmesini kapsamaktadır. Bu çalışmada nicel veriler nitel verilere göre daha ağırlıklı rol oynamaktadır. Karma aşamasında araştırmacı nitel ve nicel verilerden alınan sonuçları hangi aşamada beraber değerlendireceğine ilişkin kararlar verir. Bu çalışmada nicel ve nitel veriler bulgular kısmında ayrı olarak paylaşıldıktan sonra sonuç ve tartışma bölümünde beraber değerlendirmeye alınmıştır. Son aşama ise teori oluşturmadır. Çalışma bulgularına göre genel bir yargıya varılma aşamasıdır. Sonuç ve tartışma bölümünde bu aşama da gerçekleştirilmiştir.

Çalışmada nicel ve nitel yöntemlerin birlikte kullanıldığı karma desenlerden açımlayıcı sıralı desen kullanılmıştır. Bu desen genellikler araştırmada nicel veriler daha ağırlıklı olduğunda tercih edilmektedir. Bu desende ilk olarak nicel veriler toplanılır ve analiz edilir. Nicel verilerin bulguları daha sonraki adım olan nitel veri toplama ve analiz aşamalarını şekillendirir. Bu nedenle veriler iki farklı zaman diliminde toplanılmıştır.

Çalışma verileri anket ve yarı-yapılandırılmış görüşmeler aracılığıyla toplanmıştır. Anketler kısa zamanda daha fazla veri toplama özelliğiyle yabancı dil eğitiminde en fazla tercih edilen veri toplama yöntemlerinden biridir. Buna rağmen, anket kullanmaya karar vermeden önce dikkat edilmesi gereken hususlar vardır. Anketin doldurulması 30 dakikayı aşmamalıdır ve isimsiz doldurulabilmelidir. Bu çalışma kapsamında uygulanan anketin doldurulması ortalama 15-20 dakika sürmektedir ve katılımcılar tarafından isimsiz doldurulmuştur. Çalışmada kullanılan ölçek Alhabahba ve Mahfoodh (2016)' dan izin alınarak çalışma amacına uygun olarak adapte edilmiştir. Katılımcılar hakkında daha fazla bilgi alabilmek için ankete birkaç tane daha demografik soru eklenmiştir. Buna ek olarak anket sonuna birkaç tane açık uçlu soru eklenerek öğretmenlerin öz denetimli mesleki gelişimleri için bilgi ve iletişim teknolojileri kullanımı hakkında daha fazla bilgi edinilmesi amaçlanmıştır. Anket hazırlandıktan sonra 5 alan uzmanının fikri alınarak anketin geçerliliği güçlendirilmiştir ve alan uzmanlarından gelen dönütler aracılığıyla ankette küçük değişiklikler, açık olmayan kelimelerin değiştirilmesi gibi, yapılmıştır. Anket genel olarak altı bölümden oluşmuştur. İlk bölümü katılımcıların yaşı, mesleki tecrübeleri, teknoloji kullanımları, eğitim seviyeleri gibi demografik bilgiler öğrenmeye yönelik on adet çoktan seçmeli sorudan oluşmuştur. İkinci bölüm katılımcıların çevrimiçi kaynak araştırma güdülerini öğrenmeye yönelik dokuz adet Likert tarzı maddelerden oluşmuştur. Üçüncü bölüm ise internetin öğretmenlerin mesleki gelişimindeki yerini araştıran on adet Likert tarzı maddeleri içermektedir. Dördüncü bölümde ise internetin öğretmenlerin sınıf seviyesinde etkinliklere olan etkisini araştırmaya yönelik sekiz adet Likert tarzı maddeler vardır. Beşinci bölüm ise öğretmenlerin interneti başkalarıyla mesleki anlamda kendilerini geliştirmek amaçlı kullanımlarını araştıran 12 adet Likert tarzı maddelerden oluşmuştur. Son bölümde ise katılımcıların mesleki

gelişimleri için bilgi ve iletişim teknolojileri kullanımını araştıran beş adet açık uçlu soru vardır.

Anketin iç geçerliliği için farklı boyutlarda ve anketin geneli için Cronbach Alpha değeri hesaplanmıştır. Anketin geneli için Cronbach Alpha değeri ,953 olarak hesaplanmıştır. Katılımcıların çevrimiçi kaynak araştırma bölümü için geçerlilik ,824; internetin genel mesleki gelişim için önemi bölümü için ,909; öğretmenlerin interneti sınıf seviyesinde kullanım bölümü için ,873; öğretmenlerin başkalarıyla iletişim için internet kullanımı bölümü için ,947 olarak hesaplanmıştır.

Bu çalışmanın katılımcılarını Türkiye' de farklı seviyelerde görev yapan hizmetiçi İngilizce öğretmenleri oluşturmaktadır. Öğretmenler uygun örnekleme yoluyla seçilmişlerdir. Nicel veri Türkiye' de ilkokul, ortaokul, lise ve üniversite seviyelerinde çalışan 184 İngilizce öğretmeni tarafından çevrimiçi anket aracılığıyla toplanmıştır. Son yıllarda teknolojinin daha sık kullanılmasına bağlı olarak çevrimiçi anket aracılığıyla veri toplamak yaygınlaşmıştır. Katılımcıların büyük çoğunluğunu bayan öğretmenler oluşturmuştur. Katılımcıların yaş aralığına baktığımızda çoğunluğun 25-34 yaş aralığında olduğu görülmüştür. Katılımcıların mesleki tecrübelerine baktığımızda birçoğunun üç ile beş yıl arasında tecrübesi olduğu görülmüştür. Öğretmenlerin çalıştığı seviyeler açısından katılımcıların daha homojen dağılmış olduğu gözlemlenmiştir ancak orta okul seviyesinde çalışan öğretmenlerin sayısı diğerlerine kıyasla daha fazladır. Katılımcıların eğitim seviyelerine bakıldığında yarıdan fazlasının lisans mezunu olduğu görülmektedir. Anketi dolduran 184 katılımcı arasından 49 katılımcı mail adreslerini vererek araştırmanın ikinci aşaması olan görüşme kısmına katılmak için gönüllü olduklarını belirtmişlerdir.

Nicel veri sosyal bilimlerde kullanılan istatistik analiz paketi ile betimsel olarak analiz edilmiştir. Nicel veri anali için veriler sayısal göstergelere dönüştürüldü ve ortalamalar, standart sapmalar ve yüzdelikler hesaplandı. Anket sonundaki açık uçlu soruların analizi için ilgili kodlar çıkarıldı ve temalar oluşturuldu. Nicel verilerin analiz edilmesinden sonra, nitel görüşme verileri, anketi dolduran on iki gönüllü öğretmen ile gerçekleştirilen yarı yapılandırılmış görüşmeler aracılığıyla toplanmıştır. Görüşme soruları katılımcıların öz denetimli mesleki gelişimleri için bilgi ve iletişim

teknolojileri kullanımı hakkında daha fazla bilgi almaya yönelik olarak hazırlanmıştır. Görüşme soruları anket sorularına paralel olarak hazırlanmıştır sonuçları daha anlamlı bir şekilde yorumlamak için. Bu amaçla katılımcılara on adet görüşme sorusu hazırlanmıştır. Sorular İngilizce olarak hazırlanmıştır ve görüşme öncesinde katılımcılara ulaştırılarak sorular hakkında ön bilgi sahibi olmaları sağlanmıştır. Görüşmenin tahmini ne kadar süreceğine ilişkin bilgiler verilmiştir ve görüşmelerin kayıt altına alınarak gizlilik içerisinde çalışma içinde kullanılacağı hakkında bilgiler verilmiştir. Ayrıca katılımcılara görüşmeyi İngilizce ya da Türkçe yapabilme seçeneği sunulmuştur ve görüşmeler öğretmenlerin tercihleri doğrultusunda gerçekleştirilmiştir. Görüşme sonunda ses kayıtları araştırmacı tarafından dinlenildi ve veriler transkript edildi, ilgili kodlar çıkarıldı, temalar oluşturuldu ve yüzdelikler not edildi. Verilerden daha anlaşılabilir sonuçlar çıkarmak için üçgenleme yöntemi kullanılmıştır. Veriler birbiriyle karşılaştırıldı ve sonuç ve tartışma kısmında birleştirilerek beraber değerlendirildi.

Nitel verilerin analizi için Creswell'in (2013) altı adımdan oluşan nitel analiz basamakları kullanılmıştır. Araştırmanın nitel verilerini anket sonundaki açık uçlu sorular ve yarı yapılandırılmış görüşmeler oluşturmaktadır. Analizin ilk adımı olarak yarı yapılandırılmış görüşmelerin ses kayıtları araştırmacı tarafından transkript edilmiştir ve analiz için hazırlanmıştır. Öğretmenlerle yapılan görüşmelerin her biri yaklaşık 15 dakika sürmüştür. Ayrıca, anket sonundaki açık uçlu sorulara verilen cevaplar da analiz için hazırlanmıştır. İkinci aşama olarak veriler genel fikir sahibi olmak için okunmuştur. Üçüncü aşamada ilgili kodlar çıkarılarak not edilmiştir. Kod yazma aşamasında bazı kodlar eklenebilmektedir veya daha önce yazılan kodlarda değişiklik yapılabilmektedir. Analiz aşamasında ara ara geriye dönülerek gerekli görülen yerlerde daha önce yazılan kodlarda değişiklikler yapılmıştır. Dördüncü aşamada daha önce oluşturulan kodlara uygun temalar oluşturulmuştur. Temalar farklı kodlar ve alıntılar aracılığı ile desteklenmektedir. Son aşamada ise elde edilen bulgular genel bir yargıya varmak için değerlendirilip yorumlanmıştır.

Katılımcıların BİT kullanımına ilişkin demografik verilere bakıldığında neredeyse hepsinin internet kullanabildiği görülmüştür. Katılımcılardan iki tanesi kullanmak için zamanının olmadığını, bir tanesi ilgisini çekmediğini ve bir tanesi kullanmayı

bilmediğini ifade etmiştir. Katılıcıların bir hafta içinde interneti ortalama kullanım saatine bakıldığında büyük bir çoğunluğunun 21 saatten fazla veya 11-20 saat arasında kullandığı görülmüştür. Bilgi ve iletişim teknolojisi alanında faydalı bir eğitim alan, çok faydalı olmadığını düşündüğü bir eğitim alan ve eğitim almayan katılımcı sayıları ise birbirlerine yakındır.

Çalışma sonuçları öğretmenlerin bilgi ve iletişim teknolojilerini öz denetimli mesleki gelişim faaliyetleri için büyük oranda kullandıklarını göstermiştir. Öğretmenler bu teknolojilerden özellikle genel mesleki gelişimleri, ders hazırlıkları ve sunumları ve diğer insanlarla mesleki gelişim amaçlı iletişim için kullandıkları görülmüştür. Anket sonuçlarına göre öğretmenler bu teknolojilerden en fazla ders hazırlığı için faydalanmıştır. Ders içi etkinlik tasarlama, materyal bulma veya oluşturma, bu teknolojiler aracılığıyla sınıf içi ders sunumları ve etkinlikleri bunlardan birkaçıdır. Katılımcıların yarısından fazlası İngilizce öğretimiyle ilgili güncel makaleler okuduklarını da ifade etmişlerdir fakat diğerleriyle karşılaştırıldığında daha az katılımcı tarafından uygulanmıştır. Katılımcılar genel mesleki gelişimleri için de BİT kaynaklarını, özellikle de interneti, kullanmışlardır. İngilizce öğretimiyle ilgili son gelişmeleri takip etmede, mesleki anlamda motivasyonlarını arttırmada ve öğretme becerilerini geliştirmede katılımcılar internetten büyük ölçüde faydalandıklarını ifade etmişlerdir. Bunlara ek olarak, katılımcılar interneti başkalarıyla iletişim kurmak için de kullandıklarını ifade etmişlerdir. Katılımcılar özellikle mesleki anlamda destek almak ve diğer öğretmenlerle iletişim halinde kalmak için internetten faydalandıklarını ifade etmişlerdir. Fakat, katılımcıların neredeyse yarısı interneti mesleki anlamda destek vermek amacıyla kullanmadıklarını belirtmişlerdir. Sonuçlara bakıldığında katılımcıların destek almak için internet kullanımından daha çok faydalandıklarını görülmüştür.

Araştırmanın ikini soruna ilişkin katılımcıların mesleki gelişimleri için hangi BİT kaynaklarından faydalandıkları araştırılmıştır. Katılımcıların verdiği ifadeler sonunda katılımcıların kullandıklarını ifade ettikleri BİT kaynakları iki tema, yazılım ve donanım BİT kaynakları, altında aktarılmıştır. Yazılım temasının altında sosyal medya platformları ve eğitimle ilgili platformlar temalarına yer yerilmiştir. Katılımcıların en fazla kullandıklarını ifade ettikleri sosyal medya platformları Facebook grupları,

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forumlar ve Youtubedur. Onlara ek olarak Pinterest, blogs, twitter, Academia, ResearchGate sosyal medya platformları katılımcılar tarafında tercih edilmiştir. Katılımcılar mesleki gelişimleri için kullandıkları eğitim platformlarına örnek olarak eğitimle alakalı web sitelerden, veri tabanlarından ve eğitimle ilgili uygulamalardan sıklıkla bahsedilmiştir. Ayrıca katılımcılar çevrimiçi kurslardan, oyunlardan sınavlardan ve sözlüklerden faydalandıklarını da ifade etmişlerdir. Katılımcılar BİT kaynaklarından donanım olarak en fazla akıllı telefonlardan faydalandıklarını belirtmişlerdir. Buna ek olarak bilgisayar ve akıllı tahtalardan da faydalandıklarından bahsedilmiştir.

Katılımcıların BİT kaynaklarını hangi amaçlarla kullandıklarına ilişkin bulgular yarı yapılandırılmış görüşmeler aracılığıyla elde edilmiştir. Sonuçlar dört tema altında değerlendirilmiştir. Bu temalar mesleki gelişim, öğretme faaliyetleri, iletişim ve değerlendirmedir. Katılımcıların ifadelerine bakıldığında bu teknolojilerden en fazla diğer öğretmenlerin tecrübelerinden faydalanmak ve öğretme faaliyeti için materyal hazırlamak amaçlı faydalandıkları görülmüştür. Bunlara ek olarak, öğretmenler mesleki anlamda kendilerini geliştirmek için çevrimiçi kurs ve webinarlara katılmak, alanda son gelişmeleri takip etmek, çevrimiçi projeler yapmak, öğretme becerilerini geliştirmek ve diğer öğretmenlerle iletişim kurmak gibi amaçlarla BİT kaynaklarını kullanmışlardır.

Katılımcıların BİT kaynaklarını mesleki gelişim için kullanımını motive eden ve engelleyen faktörler anket, anket sonundaki açık uçlu sorular ve görüşme sonuçlarıyla belirlenmiştir. Bu faktörlere bakıldığında öğretmenlerin bu kaynakları kullanımlarını motive eden faktörlerden daha fazla bahsettikleri sonucuna varılmıştır. Öğretmenler bu teknolojilerin kullanılmasının öğrencilerin öğrenmelerine ve kendi mesleki gelişimlerine olumlu etkide bulunduğunu, daha kolay kaynaklara ulaşabildiklerini ve iletişim kurabildiklerini ifade etmişlerdir. Anket sonuçlarına bakıldığında öğretmenlerin büyük bir kısmının "Meslektaşlarım mesleğimi daha kolay yapmam için önerdiğinden dolayı BİT kaynakları kullanıyorum" ifadesine katılmamışlardır. Bu durum da öğretmenlerin BİT kaynaklarını kullanmak için farklı motivelerinin olduğunu göstermiştir.

Anket sonundaki açık uçlu sorular ve görüşme sorularının analizine bakıldığında katılımcıları BİT kaynaklarını kullanmaya teşvik eden faktörler dört ana tema altında toplanmıştır. Bu temalar öğrencinin öğrenmesine katkısı, öğretmen mesleki gelişimi, kaynak ve öğretmenler arasındaki iletişim ve yardımlaşmadır. Katılımcıların birçoğu BİT kaynaklarının kullanımının öğretmede yaratıcılığı arttırdığı, öğrencinin motivasyonunu arttırdığını ve daha etkili öğrendiklerini ifade etmişlerdir. Ayrıca, öğretmenlerin öğretme becerilerini geliştirdiği, alandaki son gelişmeleri takip edebildikleri ve öğretmenlerin mesleki motivasyonlarını arttırdıkları belirlenmiştir. Katılımcılar çevrimiçi kurslara katılabildiklerini, mesleki problemlerine çözüm bulabildiklerini ve zaman ve mekân rahatlığında mesleki gelişim faaliyetlerinde bulunabilmelerini de BİT kullanmalarını motive eden faktörler olarak ifade etmişlerdir. Bunlara ek olarak, katılımcılar kaynaklara daha rahat ve kolay ulaşabildiklerini, diğer öğretenlerle iletişim halinde olarak birbirlerinin tecrübelerinden faydalanabildiklerini ifade etmişlerdir.

Katılımcıların BİT kaynaklarını kullanmalarını engelleyen faktörler anket sonundaki açık uçlu sorulara verilen cevaplar ve görüşme sonuçlarının değerlendirilmesiyle elde edilmiştir. Bulgular içsel ve dışsal nedenler olarak iki tema altında ele alınmıştır ve bunların büyük bir kısmının dışsal nedenler olduğu görülmüştür. Öğretmenler daha çok teknik problemler, yavaş internet bağlantısı, yetersiz teknolojik donanım konularında zorluk yaşadıklarını belirtmiştir. Ücretli web siteler ve uygun olmayan materyal ve kaynaklar da bahsedilen diğer dışsal nedenlerdendir. Katılımcıların BİT kaynaklarını kullanmalarını engelleyen faktörlerden iç faktörler olarak öğretmen ve öğrencilerin motivasyon eksiklikleri, birçok materyal arasından uygun materyal seçmek ve zaman kaybettirici olması öğretmenler tarafından ifade edilmiştir.

Son olarak, katılımcılar öğretmenlere ve yöneticilere BİT kaynaklarının öğretmen mesleki gelişinde daha etkili kullanılmasına yönelik birtakım önerilerde bulunmuşlarıdır. Öğretmenlere yönelik önerilerin birçoğu öğretmenlerin bu teknolojilerden daha fazla faydalanmaları gerektiğine ilişkin önerilerdi. BİT kaynaklarını daha çok kullanmaları, BİT kaynakları aracılığıyla bilgilerini sürekli güncellemeleri, bu teknolojileri öğretme faaliyetlerinde kullanmaları, internet aracılığıyla kaynaklara ulaşmaları, bu teknolojilerden faydalanmak için istekli ve

meraklı olmaları, diğer öğretmenlerle iletişim halinde olmaları, sosyal medyayı mesleki gelişimleri için kullanmaları, BİT kaynaklarında seçici olmaları, ELT ile ilgili web siteleri takip etmeleri, çevrimiçi kurs ve webinarlara katılmaları, BİT kullanmaktan korkmamaları ve öğrettikleri konuları video ile zenginleştirerek öğretmeleri katılımcıların BİT'i öğretmen mesleki gelişiminde daha etkili kullanmaları için verilmiş öneriler arasındadır.

Yöneticilere yönelik öneriler ise daha çok öğretmenlerin bu teknolojileri kullanmalarını engelleyen dışsal faktörlerin ortadan kaldırılmasına yönelik önerilerdi. Katılımcılar tarafından yöneticilere yönelik önerilerden en fazla telaffuz edilen öneri bilgi ve iletişim teknolojisine yönelik eğitimin gerekli olduğuna ilişkindi. Buna ek olarak, katılımcılar okulların teknolojik donanım açısından güçlendirilmesi gerektiğini ifade etmişlerdir. Ayrıca, bilgi ve iletişim teknolojilerin de entegre edildiği bir program ve bu teknolojilerden faydalanmanın ücretsiz olması katılımcıların bahsettiği öneriler arasındadır.

Çalışmanın gerçekleştirilmesi sürecinde etik konulara dikkat edilmiştir. Çalışma gerçekleştirilmede önce gerekli izinler Etik Kurul'dan alınmıştır. Gerekli izinlerin alınmasından sonra katılımcılar çalışmanın konusu, çalışmanın nasıl ilerleyeceği, verilerin nasıl toplanılıp değerlendirileceği ve hangi amaçla kullanılacağı konularında bilgilendirilerek ankete katılımlarında gönüllülük esas alındığı konusunda haberdar edilmiştir. Ayrıca, katılımcı bilgilerinin gizli tutulacağı konusunda bilgilendirilmişlerdir. Anketler çevrimiçi ortamda isimsiz olarak doldurulmuştur ve araştırmanın ikinci aşamasında gerçekleştirilecek olan görüşme için gönüllü olan katılımcıların verdiği mail adresleri sadece çalışma amaçlı haberleşmek için kullanılmıştır. Mail adresleri paylaşılmamış ve gizli tutulmuştur. Buna ek olarak, anket doldurduktan sonra mail adreslerini veren katılımcıların daha sonra görüşmeye katılma zorunlulukları olamadıkları ve istedikleri zaman görüşme esnasında dahil geri çekilebilecekleri konusunda bilgilendirilmişlerdir. Katılımcılar yarı-yapılandırılmış görüşmeler sırasında ses kayıtlarının alınacağı konusunda da haberdar edilerek bilgileri dahilinde ses kayıtları alınmıştır. Bunlara ek olarak, görüşme soruları katılımcılara daha önceden gönderilerek süreç hakkında bilgi verilmiştir ve katılımcıların sorular hakkında ön bilgi alması sağlanmıştır. Ayrıca, katılımcılara

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görüşme esnasında İngilizce veya Türkçe devam edebilecekleri belirtilmiş ve bu konuda katılımcılara seçme sansı verilmiştir.

APPENDIX E- TEZ FOTOKOPİSİ İZİN FORMU

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Fen Bilimleri Enstitüsü ☐

Sosyal Bilimler Enstitüsü ■

Uygulamalı Matematik Enstitüsü ☐

Enformatik Enstitüsü ☐

Deniz Bilimleri Enstitüsü ☐

YAZARIN

Soyadı : Erdem

Adı   : Gamze

Bölümü : İngiliz Dili Eğitimi

TEZİN ADI (İngilizce) : In-service English Teachers' Use of Information and Communication Technology (ICT) for their Self-Directed Professional Development

TEZİN TÜRÜ : Yüksek Lisans ■   Doktora ☐

1. Tezimin tamamından kaynak gösterilmek şartıyla fotokopi alınabilir. ☐

2. Tezimin içindekiler sayfası, özet, indeks sayfalarından ve/veya bir bölümünden kaynak gösterilmek şartıyla fotokopi alınabilir. ☐

3. Tezimden bir bir (1) yıl süreyle fotokopi alınamaz. ■

TEZİN KÜTÜPHANEYE TESLİM TARİHİ:

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