T. R.
GAZIANTEP UNIVERSITY
GRADUATE SCHOOL OF EDUCATIONAL SCIENCES
DEPARTMENT OF FOREIGN LANGUAGES TEACHING
ENGLISH LANGUAGE TEACHING PROGRAM

AN ANALYSIS OF A FACEBOOK MENTORING GROUP AS A PROFESSIONAL DEVELOPMENT TOOL FOR EFL TEACHERS

CEYLAN ERDOĞAN

GAZIANTEP
JUNE, 2021

CEYLAN ERDOĞAN M.A. THESIS GAZİANTEP UNIVERSITY DEPARTMENT OF FOREIGN LANGUAGES TEACHING 2021

T. R.
GAZIANTEP UNIVERSITY
GRADUATE SCHOOL OF EDUCATIONAL SCIENCES
DEPARTMENT OF FOREIGN LANGUAGES TEACHING
ENGLISH LANGUAGE TEACHING PROGRAM

AN ANALYSIS OF A FACEBOOK MENTORING GROUP AS A PROFESSIONAL DEVELOPMENT TOOL FOR EFL TEACHERS

MASTER OF ARTS THESIS

CEYLAN ERDOĞAN

Supervisor: Assoc. Prof. Dr. Emrah CİNKARA

GAZİANTEP
JUNE, 2021

APPROVAL OF THE JURY

Student : Ceylan ERDOĞAN

University : Gaziantep University

Graduate School : Graduate School of Educational Sciences

Department : English Language Teaching

Thesis Title : An Analysis of a Facebook Mentoring Group as a Professional Development Tool For EFL Teachers

Thesis Date : 08.09.2021

I certify that this thesis satisfies all the requirements as a thesis for the degree of Master of Arts.

Assoc. Prof. Dr. Filiz YALÇIN TILFARLIOĞLU

Head of Department

This is to certify that I have read this thesis and that in my opinion, it is fully adequate, in scope and quality, as a thesis for the degree of Master of Arts.

Assoc. Prof. Dr. Emrah CİNKARA

Supervisor

This is to certify that we have read this thesis and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Master's of Art.

Examining Committee Members	**Signature**
Assoc. Prof. Dr. Emrah CİNKARA	
Assoc. Prof. Dr. Mehmet KILIÇ	
Assoc. Prof. Dr. Oktay YAĞIZ	

It is approved that this thesis has been written in compliance with the formatting rules laid down by the Graduate School Educational Sciences.

Doç.Dr. Ahmet İhsan KAYA

Director

RESEARCH ETHICS DECLARATION

The information contained here is, to the best of my knowledge and belief, accurate. I have read the University's current research ethics guidelines, and accept responsibility for the conduct of the procedures set out in the attached application in accordance with these guidelines, the University's policy on conflict of interest and any other condition laid down by the Gaziantep University Research Ethics Committee or its Sub-Committees. I have attempted to identify all the risks related to this research that may arise in conducting this research, and acknowledge my obligations and the rights of the participants.

I have declared any affiliation or financial interest in this research or its outcomes or any other circumstances which might present a perceived, potential or actual conflict of interest, in accordance with Gaziantep University policy on Conflicts of Interest.

Signature: _____
Name: CEYLAN ERDOĞAN
Student ID Number: 201729571
Date: 08.09.2021

To my beloved family…

ACKNOWLEDGEMENTS

First of all, I wish to express my sincere appreciation to my supervisor, Assoc. Prof. Dr. Emrah CİNKARA who has guided, always motivated and encouraged me from the beginning to the end of my study. I am proud of being his student. Throughout the study, his expertise, guidance, comments, insights, and encouragements were very important for me. His support during my difficult times made this study possible.

I would like to thank the teachers participating in my study and all English teachers who are members of "Innovative Teachers of English" on Facebook.

I also would like to thank my school manager Ömer ŞAHMARAN for his support to me to conclude this work.

I would like to thank my friends, especially Merve ULUKAYA, Yağmur Ceren TAŞDÖĞEN and Serkan TOPÇU who were always with me and witnessed the whole process of my study.

Lastly, my special thanks go to my family. I wouldn't complete my thesis without the support of my family. They were always strong and understanding while supporting me during my ups and downs. My beloved mother (Fatma), father (Muzaffer), sisters (Ceyda and Asena), brother (Abdullah) … I am so glad to have you. Be always with me…

ÖZET

İNGİLİZCE ÖĞRETMENLERİ İÇİN MESLEKİ GELİŞİM ARACI OLARAK BİR FACEBOOK MENTÖR GRUBUNUN ANALİZİ

ERDOĞAN, Ceylan
Yüksek Lisans, İngiliz Dili Eğitimi
Tez Danışmanı: Doç. Dr. Emrah CİNKARA
Temmuz - 2021, 100 sayfa

Mesleki gelişim bir öğretmen için hayat boyu devam eden ve aktif bir şekilde öğrenmeyi gerektiren bir süreçtir. Mentörlük, öğretmenlerin mesleki gelişiminde önemli bir rol oynar. Facebook grupları öğretmenler tarafından mentörlük aracı olarak tercih edilmektedir. Bu çalışmada, öğretmenlerinin çevrimiçi bir mesleki gelişim aracı olarak Facebook gruplarına ilişkin algılarını ve Facebook'tan nasıl yararlanabileceklerini öğrenmek amaçlanmıştır. Bu amaçla araştırmacı tarafından belirlenen kriterler çerçevesinde "Innovative Teachers of English" (ITE) adlı bir Facebook grubu seçilmiştir. Veri toplama, karma yöntemli bir araştırma tasarımı ile gerçekleştirilmiştir. Çalışmaya katılanlar ITE grup üyeleridir. Veriler iki veri toplama aracı ile toplanmıştır. İlk olarak, öğretmenlerin 6 hafta boyunca yaptıkları paylaşımlar ve yorumlar kaydedilmiştir. Toplam 174 gönderi ve 1935 yorum kaydedilmiş ve bu veriler diğer araştırmacıların ve uzmanların görüşleri dikkate alınarak içerik analizi yöntemi ile tümdengelimli olarak analiz edilmiştir. Veriler, önceki bir çalışmadan elde edilen kodlardan yararlanarak kategorize edilmiştir. İkinci olarak, bu grubun kullanımına ilişkin algılarını araştırmak için 10 katılımcı ile yarı yapılandırılmış görüşmeler yapılmıştır. Bu içerikte diğer araştırmacı ve uzmanların katkılarıyla 7 mülakat sorusu oluşturulmuştur. Öğretmenlerin mülakat sorularına verdiği yanıtları içeren veriler, araştırmacının kendisi de dahil olmak üzere İngilizce öğretmenleri tarafından analiz edilmiş ve kodlanmıştır. Nitel veriler içerik analizi kullanılarak tümevarım yöntemş ile analiz edilmiştir. Analizin sonunda, sonuçlar öğretmenlerin bu grubu çoğunlukla dersleriyle ilgili yeni etkinlikler ve materyaller bulmak için kullandıklarını göstermiştir. Öğretmenler ayrıca grubu derslere entegre edilebilecek farklı eğitim teknikleri ve stratejileri için kullanmışlardır. Ayrıca, bir başka bulgu da öğretmenlerin mesleki gelişimleri için bu gruba katıldıklarını ve öğretimle ilgili yenilikleri takip ettiklerini göstermiştir. Öğretmenler, bu tür grupları hizmet içi eğitimlerden daha yararlı bulduklarını belirtmiştir. Son olarak, bu gruptaki öğretmenlerin birbirleriyle iletişim kurdukları ve sınıflarında karşılaştıkları bazı durumlarla ilgili duygularını paylaştıkları görülmüştür. Sonuç olarak, bu grubun öğretmenler için mesleki gelişimleri açısından çok yararlı olduğu söylenebilir.

Anahtar Kelimeler: Facebook, hizmet içi eğitim, İngilizce öğretmenleri, mentörlük, mesleki gelişim

ABSTRACT

AN ANALYSIS OF A FACEBOOK MENTORING GROUP AS A PROFESSIONAL DEVELOPMENT TOOL FOR EFL TEACHERS

ERDOĞAN, Ceylan
MA Thesis, Department of English Language Teaching
Supervisor: Assoc. Prof. Dr. Emrah CİNKARA
July-2021, 100 pages

Professional development is a lifelong process for a teacher that requires active learning. Mentoring plays a significant role in teachers' professional development. Facebook groups are preferred by teachers as a mentoring tool. The purpose of the study was to find out EFL teachers' perceptions on a Facebook mentoring group and how teachers could benefit from Facebook as an online professional development tool. In accordance with this purpose, a Facebook group called "Innovative Teachers of English" (ITE) was selected within the frame of criteria defined by the researcher. Data collection was conducted through a mixed-method research design. The participants of the study were group members of ITE. The data was collected through two data collection tools. Firstly, teachers' posts and comments shared during 6 weeks were recorded. In total, 174 posts and 1935 comments were saved and analyzed deductively with the help of content analysis method by regarding other researchers' and experts' opinions. The data were analyzed with the help of the codes which were obtained from a previous study. Secondly, semi structured interviews were conducted with 10 participants to explore their perceptions on usage of this group. In this content, 7 interview questions were created with the contribution of other researchers and experts. The data including teachers' responses for interview questions were analyzed and coded by English teachers including the researcher himself. The qualitative data were analyzed inductively using content analysis. At the end of the analysis, the results showed that teachers used this group mostly to find new activities and materials related to their lessons. It was also found that teachers also used the group for different education techniques and strategies that could be integrated into lessons. Moreover, another finding showed that teachers also joined this group for their professional development and follow innovations related to teaching. Additionally, teachers stated that they found these kinds of groups more useful than in-service trainings. Finally, it was seen that teachers in this group communicated with each other and shared their feelings about some situations they came across in their classrooms. As a result, it can be said that this group is very useful for teachers in terms of their professional development.

Key Words: EFL teachers, Facebook, in-service training, mentoring, professional development

TABLE OF CONTENTS

Page

APPROVAL OF THE JURY i
RESEARCH ETHICS DECLARATION i
DEDICATION……..ii
ACKNOWLEDGEMENT……...iii
ÖZET..... iv
ABSTRACT v
LIST OF TABLES ix
LIST OF FIGURES..... x
LIST OF APPENDICES xi

CHAPTER I
INTRODUCTION

1.1 Presentation 1
1.2 Background of the Study 1
1.3 Statement of the Problem 2
1.4 Purpose of the Study..... 3
1.5 Research Questions..... 4
1.6 Significance of the Study..... 4
1.7 Assumptions and Limitations 5
1.8 Key Terms and Abbreviations 6
1.9. Summary..... 6

CHAPTER II
LITERATURE REVIEW

2.1 Presentation 7
2.2 Professional Development..... 7
2.2.1 Pedagogical Knowledge..... 8
2.2.2 Content Knowledge 8

2.2.3 Pedagogical Content Knowledge 8
2.3 Reflection Models 9
2.4 Teacher Professional Development Models 12
2.5 Teacher Professional Development Activities 15
2.6 PD on Social Media 16
2.7 Formal and Informal Mentoring 17
2.8 Facebook Groups as PD Activity 18
2.9 Related Studies 19
2.10 Summary 27

CHAPTER III

METHODOLOGY

3.1 Presentation 28
3.2 Research Design 28
3.3 Characteristics of the group 29
3.4 Participants 32
3.5 Data Collection Tools 33
3.6 Data Collection Procedure 34
3.7 Data Analysis Procedure 34
3.8 Validity and Reliability 36
3.9 Summary 37

CHAPTER IV

FINDINGS

4.1 Presentation 39
4.2. Quantitative Findings of the ITE Entries 39
4.2.1 Findings Related to First Research Question 39
4.2.2 Findings Related to Second Research Question: Which topics attract the most interaction, determined by the number of comments and words-per-entry? 56
4.3 Qualitative Findings of Interviews 57
4.3.1 Findings Related to Third Research Question: What are the EFL teachers' perceptions about the use of E-mentoring groups on Facebook in English language teaching? 57
4.4 Summary 64

CHAPTER V

DISCUSSION

5.1 Presentation 66

5.2 Discussion of Quantitative Findings..... 66

5.2.1 Discussion for First Research Question: What are the topics EFL teachers post on ITE?..... 66

5.2.2 Discussion for Second Research Question: Which topics attract the most interaction, determined by the number of comments and words-per-entry?..... 68

5.3 Discussion of Qualitative Findings..... 70

5.3.1 Discussion for Third Research Question: What are the EFL teachers' perceptions about the use of E-mentoring groups on Facebook in English language teaching?..... 70

5.4 Summary..... 72

CHAPTER VI

CONCLUSION

6.1 Presentation 73

6.2 Summary of the Study 73

6.3 Conclusion 74

6.4 Implications and Suggestions for Further Studies 75

6.4.1 Implications..... 75

6.4.2 Suggestions for Researchers 76

6.4.3 Suggestions for Teachers 76

REFERENCES 77

APPENDICES……...78

VITAE 86

ÖZGEÇMİŞ……..81

LIST OF TABLES

Table 1. The spectrum of CPD Models by Kennedy (2005)……..24

Table 2. Demographic information of participants who shared posts on ITE during defined dates…….…..34

Table 3. Demographic information of participants who interviewed……35

Table 4. Questions determining reliability of a study by Miles and Huberman (1994).....40

Table 5. Summary of initial quantitative findings……..……42

Table 6. Number of comments and words per entry in each category……...59

Table 7. The ways teachers are aware of ITE…….……60

Table 8. Purpose of using ITE ……....61

Table 9. Frequency of ITE usage……..…..61

Table 10. Teachers' opinions on advantages of using ITE……..6

Table 11. Teachers' opinions on disadvantages of using ITE……64

Table 12. Evaluation of posts and comments shared in ITE…….....65

Table 13. Similarities and differences between FB groups and In-service training…65

LIST OF FIGURES

Figure 1. Kolb's Model of Experiential Learning (1984)……11
Figure 2. Gibbs's Reflective Cycle (1998)……...12
Figure 3. Guskey's Model of Teacher Change (2002, p. 383)……14
Figure 4. The Four Quadrants of the Teacher's Choice Framework……...16
Figure 5. Post area on Facebook……..……31
Figure 6. Comment area on Facebook……..31
Figure 7. Samples of comments written under a post……..….32
Figure 8. Number of entries for each category……..41
Figure 9. Number of comments for each category……42
Figure 10. Number of words for each category……43

LIST OF APPENDICES

Appendix-A: Quantitative Figures Regarding the Content of Entries

Appendix-B: Interview Questions

Appendix-C: List of Categories and Sub-categories Used for the Study

CHAPTER I

INTRODUCTION

1.1 Presentation

The purpose of this study is to find out how teachers can benefit from a group on Facebook (FB) and what their perceptions are on the usage of FB groups as an online professional development tool. In the first chapter, the background information, the purpose of this study, research questions, the significance of the study, assumptions, and limitations are introduced in detail.

1.2 Background of the Study

Teacher education is a vital component of the education system. It is necessary for teachers to support their students and encourage them to achieve their goals. Therefore, it is important that teachers improve themselves in harmony with the digital era and developing world.

Technology is an indispensable tool which promotes human development. Moreover, with the help of technology, people have reached such a great number of different platforms as social media. Through social media, people can have various opportunities; they can communicate, share various ideas and learn new things every day. Online tools play an important role on teachers' professional development which is why they should be implemented to lessons. They have a considerable effect on learning, teaching, and development of teachers. Most of the social media tools

provide a platform to teachers where they can learn different things from each other (Loucks-Horsley et al., 1998). In the 21st century, some popular social media tools are used by millions of teachers for several reasons. E-mentoring is one of these reasons supporting the transition of knowledge between pre-service and experienced teachers. E-mentoring is preferred and used more than face-to-face mentoring because teachers can use e-mentoring programs when and where they want (Cinkara & Arslan, 2017). On the other hand, Watson (2006) claims that e- mentoring is less effective than face-to-face mentoring although e- mentoring offers flexibility to teachers in terms of time and location. E-mentoring gives teachers from all around the world a chance to talk about their teaching skills and the problems they face in their classes. In another study (Smith & Israel, 2010), it is claimed that teachers prefer online learning and social media tools for peer support. Moreover, Bierema and Merriam (2002) state that e-mentoring provides an opportunity for teachers to communicate among each other regardless of their geography and culture.

Facebook (FB) is a kind of social media, used for interactive, educational, informational, and entertainment purposes. It is considered as the most common platform that could be a great help for teachers. There are some e-mentoring groups on FB used by EFL teachers in which teachers share their ideas, lesson plans and materials by creating entries.

A few studies were carried out on why teachers used these groups on FB in the past (Cinkara & Arslan, 2017; Duncan-Howell, 2010; Hou et al., 2010; Hur & Hara, 2007; Hur & Brush, 2009; Rutherford, 2010; Tseng & Kuo, 2014;). Still, it is necessary to find out the current situation of groups on FB since the needs and purposes of teachers changed over time, and each FB e-mentoring group could give different results compared to previous ones. Hence, it is hoped that this research will contribute to a deeper understanding of what purposes teachers use FB groups as an e-mentoring tool now.

1.3 Statement of the Problem

According to Hart and Steinbrecher (2011), conducting studies on e- mentoring groups used by teachers as a PD tool is significant. Nacu et al. (2014) indicated that using e-mentoring groups on social media is one of the most important ways of teacher

development and these groups should be used by all teachers to learn new ideas and methods. Those who have FB accounts are generally members of some groups, which can be informative and entertaining, on FB. People choose different groups related to their jobs, activities or hobbies depending on their interests. FB has various e-mentoring groups in which members of these groups generally work as teachers all over the world. Teachers do not have an equal chance to improve themselves due to their location and they may have difficulties having face-to-face support; therefore, teachers may need and create these groups on FB. Teachers share various posts about different topics such as classroom management, pedagogical knowledge, content knowledge, and their career development on these groups. Other teachers comment and give feedback to these posts, thereby they can have a chance to share their problems, solutions, or different ideas and activities with other teachers in these groups. Moreover, teachers share their materials such as games, songs, videos, books, documents, and useful websites here. When they have difficulty applying a different method in their classes, they usually ask and get help from these groups. Thanks to these groups, they can get in touch with each other and learn new things. Therefore, the usage of these social media tools should be generalized by all teachers. For this reason, FB groups should be supported and likewise, teachers should be encouraged to be a member of these groups.

There are thousands of teachers from various nations in these groups which need to be analyzed (Rutherford, 2010). Some studies indicate the purpose of using these e-mentoring groups on social media (Cinkara & Arslan, 2017; Duncan-Howell, 2010; Hou et al., 2010; Hur & Hara, 2007; Hur & Brush, 2009; Rutherford, 2010; Tseng & Kuo, 2014;). In these studies, data have been obtained from posts and comments that teachers share in these e-mentoring groups and these data have been classified according to the purposes of teachers. However, the current studies have not analyzed the opinions of teachers using these groups. For this reason, this study will reveal both the purposes of teachers using a certain group and their opinions on the usage of this group.

1.4 Purpose of the Study

There are thousands of teachers who are members of e-mentoring groups on FB, and they frequently use these groups. The main purpose of this study is to determine

for what purposes teachers use this group as a professional development tool and the frequency of these purposes by analyzing EFL teachers' posts on the group called as "Innovative Teachers of English (ITE)". The second goal of the study is to reveal perceptions of EFL teachers on usage of mentoring groups on FB with the help of interviews applied to the teachers.

1.5 Research Questions

This study has been guided with the following questions;

Research Question #1 What are the topics EFL teachers post on ITE?

Research Question #2 Which topics attract the most interaction, determined by the number of comments and words-per-entry?

Research Question #3 What are the EFL teachers' perceptions about the use of E-mentoring groups on Facebook in English language teaching?

1.6 Significance of the Study

In the 21st century, teaching is a complex and multidimensional occupation. Because there is not only one type of teaching, each teaching style includes different approaches, techniques, and methods. The world is evolving, people are evolving and the things we used yesterday do not meet our needs today. In order to keep up with the times and improve their teaching skills, teachers benefit from various strategies. They benefit from course books, curriculum, workshops, technology, and social media, which provide a lot of advantages to teachers. Social media tools like FB utilize both learning and teaching. There are many e-mentoring groups on FB and EFL teachers share their experiences, suggestions, and knowledge on various topics such as pedagogical knowledge (PK), content knowledge (CK) , resources, and career development there (Cinkara & Arslan, 2017). The significance of e-mentoring groups on teachers' development is considerable. Mentoring groups ensure the transition of knowledge and pedagogical skills continuously. These groups increase teachers' self-awareness, develop their interpersonal and communication skills and enhance their reflection abilities (Cinkara & Arslan, 2017). Philips and Fragoulis (2010) claim that mentoring strengthens teachers' knowledge, improves communication skills, enhances

leadership, teaching and coaching skills, and encourages the personal and professional development of teachers. Moreover, mentoring programs not only increase inclusion and participation but also enhance personal and professional empowerment (Ellinger et al., 2008).

Among recent studies, there are few types of research on the nature and functionality of informal e-mentoring for English-language teachers. However, they only focus on the creation of online teacher communities. For instance, Schlager and Schank (1997) pointed that being a member of online communities was crucial but, they did not identify the reasons why teachers stayed in these groups for a long time. Moreover, Hur and Hara (2007) revealed the aims of using these e-mentoring groups on social media but they did not emphasize perceptions of teachers on using these groups. In this study, in order to overcome these deficiencies, an interview was applied to EFL teachers to show teachers' perceptions on using mentoring groups on FB and demonstrate whether the usage of FB mentoring groups affects teachers' professional development and teaching skills. This study provides data on the use of FB as a tool for mentoring. The study also shows that usage of FB mentoring groups has varieties in terms of functionality. Moreover, the current study reveals the usage of an e-mentoring group from different perspectives. Significantly, it facilitates interactions among EFL teachers in these mentoring groups. Moreover, the data obtained from EFL teachers could support the mentoring components of teacher education. In this way, this study has great importance as it may fill the gap in this field.

1.7 Assumptions and Limitations

This study investigates the use of social media in Turkey as a form of informal e-mentoring for English-language teachers. In line with the data obtained from the study, some limitations need to be considered. Regarding the current data of the study, it can be said that the sample may not enough to generalize the findings. An analysis of entries shared by teachers between different dates may give different results. If more participants had shared more posts during the determined duration, the results could have been different from the current ones.

1.8 Key Terms and Abbreviations

To make this study clearer, the following key terms are defined:

Mentoring: In mentoring, one colleague supports another's development of skill and knowledge and it provides guidance in which experiences and best practices are shared (Hudson, 2012).

TD (Teacher Development): Teacher development is "the process whereby teachers' professionalism and/ or professionality may be considered to be enhanced" (Evans, 2002).

PF: Professional Development

ITE: An abbreviation for the name of the group called *"Innovative Teachers of English*"

EFL: English as a Foreign Language

FB: Facebook

CK: Content Knowledge

PK: Pedagogical Knowledge

PCK: Pedagogical Content Knowledge

1.9. Summary

Teachers need endless education to train students well and support their achievements. They always need to improve themselves in order to keep up with the digital era and developing world. During their development process, they generally need mentoring from their colleagues about different topics such as classroom management, CK, PK or PCK. It is possible for teachers to have a mentoring environment on social media and they do not necessarily have to get mentoring face to face. FB is a platform where teachers have countless opportunities to mentor one another. Each day, it is frequently used by thousands of EFL teachers. Previous studies point that using these FB groups are crucial for teacher development. They revealed teachers' purposes for using these tools. However, the current study aimed to show both the use of a group on FB as an e-mentoring tool and reveal perceptions of EFL teachers on the effectiveness of this group by interviewing them.

CHAPTER II

LITERATURE REVIEW

2.1 Presentation

This chapter provides information about studies on formal and informal mentoring, professional development (PD), PD models, PD activities, PD activities on social media, FB as a professional development tool, and related studies. Moreover, professional development and PD models are explained in detail.

2.2 Professional Development

Professional development (PD) is a fundamental part of the ongoing learning and improvement of people during their whole life. Diaz-Maggioli (2004) defines professional development as a consistent process of maintaining individuals' skills, learning, or knowledge in their profession. It is a key concept especially for teachers to improve their teaching skills during their teaching process. It should be always and regular for teachers if they want to apply current and modern teaching skills and strategies to students. Teachers can enhance their teaching or classroom management skills with PD workshops, seminars, or conferences. Teachers also develop their teaching skills by interacting with teacher trainers to learn new tips and techniques. Cohen & Hill (2001) describe PD as collaboration and cooperation among teachers. They also claim that it provides informal mentoring among teachers; it is a planned and ongoing process, and includes an active learning process. Professional development must be improved according to the needs of teachers in particular settings which consist of CK, PK, or PCK (Shulman, 1986). According to Shulman (1986), CK, PK and PCK of teachers are explained briefly below.

2.2.1 Pedagogical Knowledge

Pedagogical knowledge is a necessity for teaching and it completely concerns the teachers (Shulman, 1986). PK includes classroom management skills, teaching skills, and classroom assessment skills of teachers (Voss et al., 2011). Shulman (1986), also supports that PK is the ability of teachers creating a suitable learning atmosphere and learning experience. It enables students' management according to the applied curriculum. Moreover, pedagogic knowledge supports the learning process which includes design of the lessons, effective planning, implementation, learning outcomes, assessment, and students' development (Shulman, 1986).

2.2.2 Content Knowledge

Content knowledge is teachers' general knowledge in a particular subject. CK of teachers determines the teaching-learning process and learners' achievement significantly. Darling-Hammond (2000) support that teachers' strong CK is a significant part of teaching. Shulman (1986) also supports that CK improves teachers' knowledge and it is essential for teacher qualification because the teachers not knowing a subject well cannot help students learn the content well enough (Shulman, 1986).

2.2.3 Pedagogical Content Knowledge

Pedagogical content knowledge (PCK) is a type of knowledge that includes both teachers' CK and their skills to guide students (Mayne, 2019). Shulman (1986) describes PCK as a form of CK supported by teachers' strategies and skills and also states that PCK is a combination of content and pedagogy dealing with how teachers adapt and transform their knowledge into strategies or skills applied in the classroom (Shulman, 1987). PCK provides teachers knowledge which they can apply during classroom practice. Similarly, Richards (1991) describes PCK as theories and practices which form the content of second language teacher education. Moreover, it is also claimed that PCK makes the comprehension process easier for learners (Depaepe et al., 2013).

2.3 Reflection Models

Reflection practice is used to improve the work of practitioners in different professions (Caldwell & Grobbel, 2013). In reflective practice, practitioners can have a chance to observe and evaluate themselves to understand their own actions and reactions (Brookfield, 1995). Reflective practice can be applied for teachers who want to improve themselves effectively. Teachers apply reflection in classroom practice to learn from their own performance and to relate teaching theory to teaching practice. Additionally, this process encourages teachers to apply existing theories and their own opinions of teaching, which is essential for their teaching careers.

Han (1995) emphasizes that reflection helps teachers while making decisions and learning how to be a good teacher. Jacobs et al. (2011) suggest that reflective process for teachers is important as it gives the opportunity to renew their knowledge and to understand impact of their teaching on students. Akbari (2007) also suggests that reflective teaching will develop more informed practice for teachers and teachers will make their own choices during the situations they are in.

Schön (1983) states that reflective teaching practice is an ongoing process and it includes practitioners' considering their own experience carefully in order to practice what they have learned from professionals. This helps them improve their own teaching process. Schön (1983) also defines reflection practice as 'professional artistry' where practitioners deal with unexpected conflicts and undetermined conditions.

There are different forms of reflection models. Schön (1983) describes two types of reflection models that are important in the development of teaching practice: reflection-in-action and reflection-on-action. Reflection-on-action involves actions thinking after the event (writing down in a journal about what you feel, speaking with a colleague or a mentor, learning for advice and support) while reflection-in-action is thinking while doing (taking notes, gathering feedback, group discussion) (Schön, 1983). However, both models must be linked to previous and current learning. In other words, evaluating and extracting meaning from teaching process in order to make positive changes for both conditions is significant. Kolb (1984) models reflection practice as a formal cycle called the 'Experiential Learning Cycle.' This cycle is given below in Figure 1.

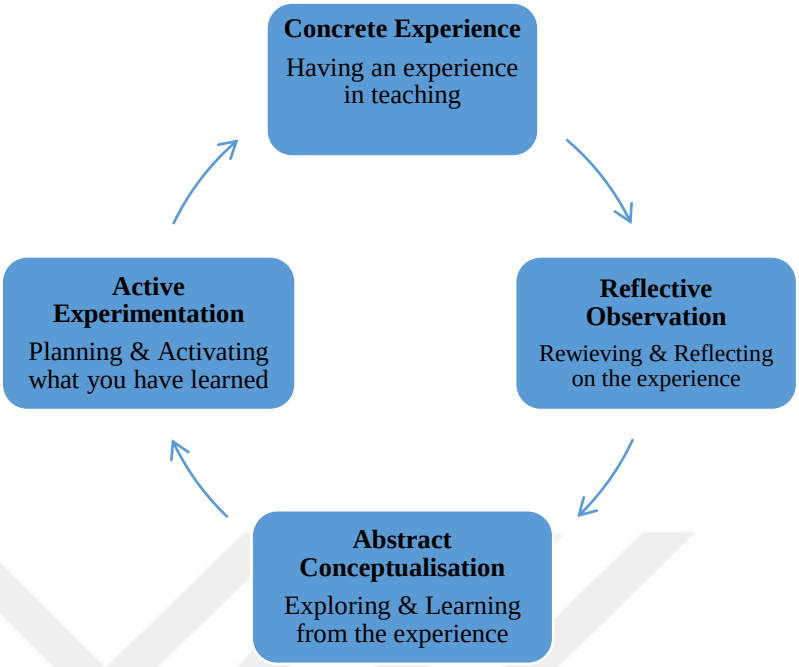


Figure 1. *A Model of Experiential Learning by Kolb (1984)*

The cycle in Figure 1 consists of four processes named concrete experience, reflective observation, abstract conceptualization and active experimentation (Kolb, 1984). This model helps teachers draw and reflect conclusions from their experiences while teaching. It encourages teachers to plan their lessons in order to do something different and test them. It integrates daily experience with evidence-based educational research. In Concrete Experience, an event could occur during teaching process, and this experience may pause teacher for reflection. This experience can either be unexpectedly or consciously carried out. Reflective Observation is provided with these questions: What was I trying to do? What did I do? Why did I do it? For Abstract Conceptualisation stage, teachers explore their initial reflections to understand what happened and they draw conclusions and make decisions on whether a change is required. This stage can be supported by other colleagues. During Actively Experiment stage, teachers practice new ideas and strategies that they have gained during their teaching period.

Gibbs supports that reflection in teaching and he points that learning needs suitable structured conditions (Gibbs, 1998). Therefore, it must be in an intentionally structured method that facilitates teaching improvement and have a clear purpose.

Gibbs advanced Kolb's model and created a more comprehensible cycle providing more detailed questions. This cycle is given in Figure 2.

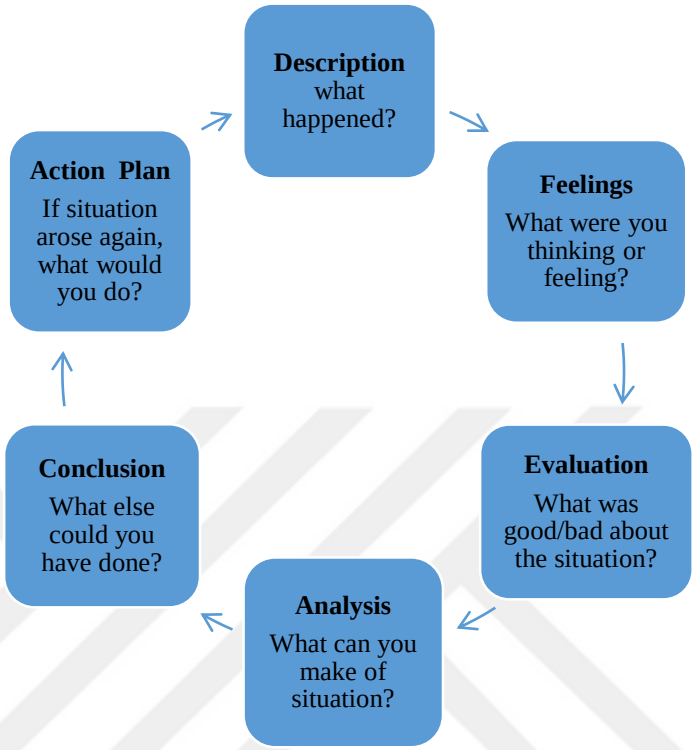


Figure 2. *Reflective Cycle Model by Gibbs (1998)*

As Figure 2 shows, Gibbs' reflective cycle includes personal reflection on how one feels about what happened, what was good or bad about the experience of it. As for Description stage, practitioners describe in detail what happened during the event by answering these questions: Where was I at the time? What was I doing? Who else was there and what were they doing? What happened? What was my part in this? What was the result? Then, practitioners consider their personal reflection answering these questions: How were you feeling when the event started? What were you thinking about at the time? How did it make you feel? How did other people make you feel? How did you feel about the outcome of the event? What do you think about it now? In Evaluation stage, practitioners get a chance to consider their own and students' needs. In Analysis stage, practitioners make sense of the process and support it with research from the literature with these questions: What went well? What did I do well? What did others do well? What did not go well, or turn out as I had planned?

What did I or others contribute to this outcome? In Conclusion stage, they draw meaning from the process and think about what they need to improve and how they might achieve this. In Action plan stage, they draw up an action plan and ask themselves this question: If it occurs again, what would I do? (Gibbs, 1998).

On the other hand, Rolfe et al.'s (2001) "What" reflective model consists of three simple questions: What? So what? Now what? Practitioners think about the problems they face, their roles in the situation, actions they take, and responses of others in this model.

2.4 Teacher Professional Development Models

Teacher professional development is a continuous process where teachers engage permanently. It includes experience, related learning, new practices as well as contemporary attitudes and beliefs on learners. It should not be one time practice but needs to be carried out throughout their whole life. Several authors have stated different models to define teacher professional development. One of them, Guskey (2002) claims that teachers' adjustments or implementations can be observed through changes in students' learning. Likewise, Eraut (1994) states that teacher professional development can be realized by introducing or improving knowledge, skills, and manners. Similarly, Kennedy (2005) argues that continuing professional development empowers teachers who want to shape their practice as well as those who want to be a model for teacher development.

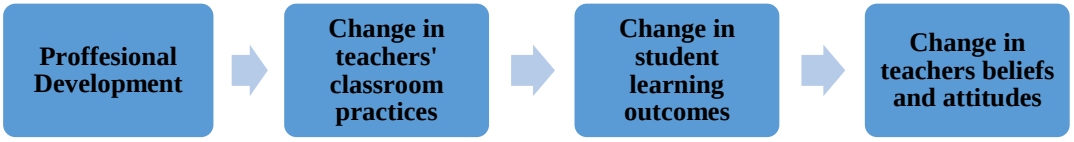


Figure 3. *Guskey's Model of Teacher Change (2002, p. 383)*

As seen in Figure 3, Guskey (2002) emphasizes that the Professional Development process creates some changes in teachers' classroom practices, student learning outcomes, and teachers' beliefs and attitudes. Similarly, there are teacher

professional development models outlined by Kennedy (2005). These models are given in Table 1.

Table 1. *The spectrum of CPD Models by Kennedy (2005)*

Model of CPD	Purpose of model
The training model	
The award-bearing model	Transmission
The deficit model	
The cascade model	
The standards-based model	
The coaching/mentoring model	Transitional
The community model	
The action research model	Transformative
The transformative model	

Increasing capacity for Professional autonomy

Table 1 shows the model consisting of teachers' skills and theoretical knowledge. This model provides teachers the chance of updating and developing their skills. It is given to the teachers by an expert and it can take place in a setting where the participants work. The models were categorized as followed; '*Training Model'* is the most common professional development (CPD) model for teachers (Little, 1994). '*An award-bearing model*' of CPD is usually validated by higher education institutions. This validation can be regarded as a mark of quality. However, this model can cause teachers to be worried compared to the other models. '*Deficit Model'* deals with the weaknesses of each teacher and it tends to adapt individually. It may not be effective for confidence and is lack of supporting the development of collective knowledge. '*Cascade model'* includes 'training events' and teachers cascade and share the information with other colleagues at such events. Furthermore, this model is the relatively cheap one in terms of resources among others and it supports teachers' skills and knowledge. However, it is lack of principles of participation, collaboration. '*Standards-based model'* claims that there must be an effective teaching method, and it must be provided by each and every teacher. According to this model, developing a common language should be used by teachers even though it may be very narrow and limited. '*Community of practice model'* supports communities to work well through combining the knowledge and experience of members. This model generally involves

more than two people and does not contain confidentiality. '*Action research model'* is related to the classroom, and it enables teachers to practice within the situation. '*Transformation model'* covers different types of PD models. This model also requires teachers to be aware of the integration of various processes and conditions which make them better as teachers. '*Coaching/mentoring model'* plays a significant role in the career, retention, and leadership development of teachers. This is vital for unqualified teachers (Saluja et al., 2002). Mentoring provides teachers to improve their qualifications (Ryan et al., 2004). Moreover, this model has been seen as instructive, intentional, and supportive between a more experienced person and a less experienced one. This term has recently been used as a guide, teacher, adviser, couch, and helper to another (Shea, 1994). However, it should also be noted that there are some differences between coaching and mentoring. While coaching is more skills-based, mentoring involves an element of 'counseling and professional friendship' (Rhodes & Beneicke, 2002). Additionally, mentoring occurs between one who is a novice and the other who is more experienced (Clutterbuck, 2004). It is the development of a friendly relationship and it needs good communication skills.

Additionally, Diaz-Maggioli (2004) states that teacher development is a collaborative and continuous process in which teachers empower and improve their practices by analyzing students' needs and adjusting their teaching styles. Teachers' awareness of needs and their lack of knowledge in establishing a teacher development framework makes this model different from previous ones. Thanks to this model, the teachers who are aware of their lack and need in improving teaching skills can meet these specific needs. The model was given in Figure 5.

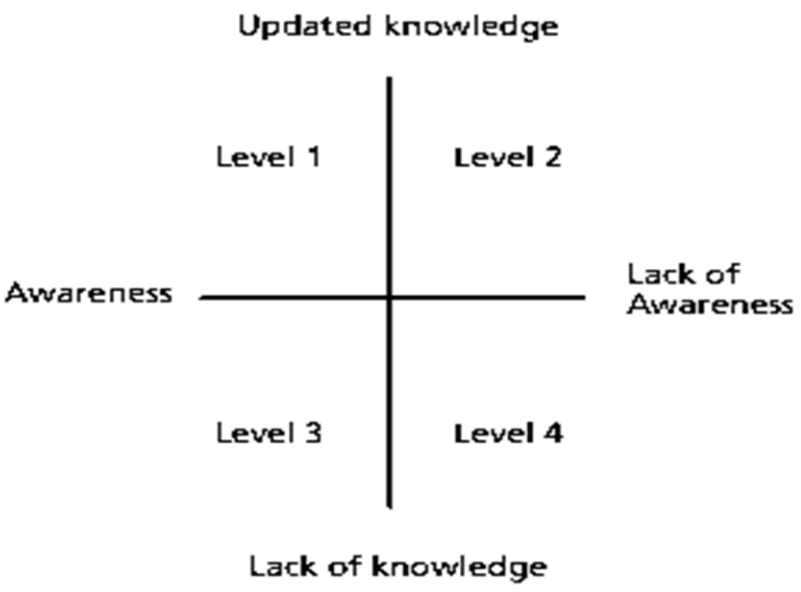


Figure 4. *The Four Quadrants of the Teacher's Choice Framework (Diaz-Maggoli, 2004, p. 15)*

Figure 4 represents the Four Quadrants of the Teacher's Choice Framework which guides the design of a teacher development plan based on this model (Diaz-Maggioli, 2004).

2.5 Teacher Professional Development Activities

Teacher professional development is any type of continuing education effort for all teachers in the lifelong learning process. It enables teachers to improve their skills while helping them improve their students'. If teachers continuously improve themselves, follow learning opportunities, seek professional development resources, and provide their students' learning needs, they can be more willing to be effective teachers. These teachers focus on the needs of their students and learn everything necessary to solve problems in order to ensure success of students.

PD can help new and experienced teachers develop their skills and shape their career-long learning. PD enables teachers to be confident and active participants in their learning. According to Mann (2015), innovation and change are indispensable parts of teacher development, and it is a process of conscious choices including personal, moral, and value dimensions. Moreover, Padwad and Dixtid (2011) emphasize that PD

empowers teachers' personal and professional qualities and the improvement of their pupils.

Professional development for teachers can take place in formal or informal settings. There are formal activities which support teachers' professional development including courses, seminars, online podcasts, conferences, workshops, in-service days. On the other hand, informal opportunities for teacher PD include research, investigation, peer learning initiatives, chatting with a colleague, and using social media. Teachers overcomes such difficulties as time, money, engagement by using social media and they can be effective teachers.

2.6 PD on Social Media

In today's world, technology is developing rapidly and it provides various solutions for each field. Education in the 21st century cannot be separated from technology-based solutions. Recently, technology has been an essential tool for teachers, especially those who have grown up with digital technologies (Prensky, 2005). Thanks to technology, teachers and students have online state assessments, online games, technology-rich classrooms, internet-based course books, which shows that technology is a way of life for teachers and their students. Social media and social networking sites are used as a popular context by teachers for PD purposes (Greenhow et al., 2018). Teachers benefit from a range of different social media sites including Twitter, Linkedin, Instagram, Pinterest, YouTube, and FB. Teachers use Twitter to follow teaching trends and learn from other educators; Linkedin to build their network; Instagram to post and share images and resources; Pinterest to post and share classroom resources and discover new classroom ideas; FB to combine all of them, and YouTube for their professional development (Greenhow et al., 2018). All these sites enable teachers' discovering new trends in teaching and through these social media tools teachers share various information, ideas, and techniques with each other (Harvey & Hyndman, 2018). In this way, teachers facilitate their coordination and cooperation among themselves by exchanging resources, sharing their knowledge.

Social media tools make communication between students and teachers easier, and teachers can provide announcements, assignments, and resources related to a

course through these tools (Mazman & Usluel, 2010). Thanks to these tools, teachers can review, update and edit the content easily, quickly, at anytime and anywhere. In this way, each student can study on their own and they feel more comfortable (Jalal & Zaidieh, 2012). It is also emphasized that the use of social media has various positive effects for both students and teachers when it is well-planned; therefore, the effectiveness of using various social media should be introduced to teachers (Doğan & Gülbahar, 2018).

2.7 Formal and Informal Mentoring

Mentoring plays a significant role in the career development of teachers. Teachers who aim to develop themselves professionally, mentoring programs are accepted very important and they improve teachers' qualifications (Ryan et al., 2004). Mentoring programs provide communicational, motivational, reflexive, educational, and intellectual qualities to the teachers. Similarly, mentoring has recently been mentioned as a guide, teacher, adviser, and helper to another (Shea, 1994). Moreover, mentoring is identified as a mutual relationship between someone who is more experienced and someone who is less experienced (Jeruchim & Shapiro, 1992).

Mentoring consists of two different models; formal mentoring, which is governed by a third person and informal mentoring, which has no support by a third person (Cinkara & Arslan, 2017). Formal mentoring includes frequent face-to-face mentoring sessions over a long period and it is well-structured (Cinkara & Arslan, 2017). The mentorships in formal mentoring are much longer and there are goals they are to achieve between mentees and mentors. On the other hand, informal mentoring is flexible and there may not be goals to achieve. The relationships between mentees and mentors last only one or two sessions (Raggins & Cotton, 1999). Furthermore, one of the other differences between informal and formal mentoring is motivation. Informal mentors are more motivated than formal mentors in terms of supporting the professional development of mentees (Raggins & Cotton, 1999). Informal mentors are more volunteer and willing to enhance mentees' development. Thanks to this friendly atmosphere, they can provide more psychosocial and professional support to mentees. Regarding these definitions, e-mentoring can be considered informal mentoring.

E-mentoring is described as a relationship between more experienced and less experienced people regardless of their locations (Mihram, 2004). Also, Bierema and

Merriam (2002) state that e-mentoring is provided on online platforms, and mentors support mentees by counseling, modeling, sharing knowledge on these platforms. Similarly, Jaffe et al. (2006) define e-mentoring as a relationship between a more experienced individual (mentor) and a less skilled or experienced individual (mentee) to improve each mentee's skills, confidence, and knowledge. Furthermore, e-mentoring is defined by Single and Muller (1999) as a paired relationship to improve mentees' knowledge, confidence, and cultural understanding. E-mentoring is regarded as the use of computer-based communications such as e-mail, Web conferencing, chat rooms, blogs that provide interaction between mentors and mentees. E-mentoring does not have traditional intensive programs like face-to-face mentoring programs. E-mentors can be matched to mentees from anywhere. Contrary to face to face mentoring programs, e-mentoring programs can be carried out from different towns, regions, or countries (Jaffe et al., 2006). The mentor is selected regarding mentees' needs rather than location issues (Hebert et al., 2008). It has been also stated that it differs from face-to-face mentoring in terms of timing and geography (Cinkara & Arslan, 2017). The distance cannot prevent mentees and mentors from meeting and communicating. While e-mentoring has some advantages, it has also some disadvantages; e-mentoring can be realized on computers or mobile phones which are electronic and, this feature may make the mentoring process slower. Still, e-mentoring is preferred by teachers, especially who use e-mentoring programs instead of face-to-face mentoring programs. Online mentoring programs including suggestions for lesson plans, classroom management skills, resources are popular among teachers (Miller, 1999). Miller (1999) also states that throughout their teaching life, teachers need support for their knowledge and this can be provided by a mentor. In this study, mentees are the teachers who are looking for new ideas or suggestions for their classes in the group. On the other hand, mentors are also the teachers are giving advice and supporting other teachers with their help and knowledge.

2.8 Facebook Groups as PD Activity

FB is one of the most popular social media sites including more than 900 million users (Facebook, n.d.). It has been used for different purposes such as sharing photos or videos with others, gathering information about current news, communicating. People use FB for participation, communicating, sharing, community,

and connectedness (Mayfield, 2008). FB is also used as an effective learning environment these days. It has been indicated that FB is used as a tool for teaching as well as learning (Ekoc, 2014). Many researchers support that FB is not only used for socializing but also for PD (Vassilakaki & Garoufallou, 2015). Chen (2014) claims that FB groups are regarded as an educational tool, and they can be used as a Learning Management System (LMS) substitute or as a supplemental tool. The fact that FB has a great many members makes it an important interaction area which anyone cannot ignore. FB offers members to create a group on their interest and share information on these groups. There is useful information being shared by members on FB where various groups of people gather, share and talk about their concerns (Wassen, 2016). Teachers can take advantage of groups created on FB. By using these groups on FB, teachers engage in beneficial interaction with other members who are teachers (Madge et al., 2009). It has been also stated that people do not have to travel or participate in events to collect information (Meyrowitz, 1997). Furthermore, FB provides the flow of information to everyone that wants to benefit from it (Lin, 2002). All those above show that FB enables interaction among teachers without the constraints of time and location.

Compared to the other sites, FB has been used by educators more than others (Ellison et al., 2007). The researchers have mostly investigated students' educational use of FB, teachers' use of FB in pedagogic practice. It is pointed that FB has positive effects on teachers to provide a well-designed classroom environment (Mazer et al., 2007). While some studies have explored the use of FB in the context of curriculum-related activities (Anderson et al., 2010), other studies have investigated how FB contributes to learning environments (Arnold & Paulus, 2010). For this research, because the speed in communication and sharing is better in FB, and it is more common than other sites, FB was chosen as a professional development tool to be investigated.

2.9 Related Studies

Previous studies worked on social media websites as online professional development tools. Bicen and Uzunboylu (2013) investigated teachers' perceptions on FB as a tool for teaching skills. This research was conducted according to the empirical research design. It was carried out in 30 hours with 35 teachers using FB. The teachers

were the participants of the study who were working in primary and secondary schools. In this study, the data were collected through a five-likert-type scale developed by researchers called "Teachers' Views on FB in Education". In the research, data were collected both at the beginning and the end of the study. The results showed that teachers' perceptions on the use of FB as an educational tool were positive.

Alemdağ (2015) designed an e-mentoring application that teachers would provide online mentoring support to each other. In the study, teachers' interactions in the application process were examined and the teachers' satisfaction on the application was determined. The participants of this study were 14 mentee teachers in the first year of their profession, 14 mentor teachers having at least 5 years' experience, academicians, and the researcher conducting the study. The data were obtained during the 9-week process. In the data analysis, the content analysis method was conducted. The results showed that the frequency of interaction in the group changing depending on the time and the group of participants. It was also observed that there were different support processes in the group consisting of seeking support, providing support, and meeting support. Additionally, teachers provided three types of support to each other in the group; they are cognitive, affective, and instrumental support. In addition, when Alemdağ (2015) evaluated opinions of the participants including their satisfaction with the application, he found that the positive views about the satisfaction levels of the participants were more frequent than the negative views. As a result of this study, it was revealed that mentors and mentees are satisfied with the practice of e-mentoring and that e-mentoring practice provides different cognitive and affective contributions to both mentees and mentor teachers in the context of professional development. He stated that such an application could be effective in providing support and finding solutions to their problems for teachers in different parts of the country.

Kelly and Antonio (2016) have researched social communication platforms in which teachers support each other and analyzed teacher peer support. In this research, they aimed to define the features and types of online peer supports of teachers by observing group works in these social communication platforms. They observed that teachers preferred usage of FB since it was more common and popular among teachers. Kelly and Antonio (2016) have studied teacher support in FB groups in two stages. They gathered the data by investigating the interaction of teachers in the group during 12 weeks. While analyzing the data, the comments written under the group posts were

counted and coded. The codes and qualitative analyses showed that teachers support each other in an open FB group in six different ways. While creating categories, the researchers benefited from the social support category of House (1981), and the data gathered by Clarke (2014). Kelly and Antonio (2016) concluded that teachers used these kinds of groups in social communication platforms to support each other and to share educational materials and advice.

Keleş (2018) investigated a group on FB which was created by pre-service teachers for a course of Community Services in the Faculty of Education in Karadeniz Technical University. The researcher investigated the FB posts and prospective teachers' opinions to research the learning process of this course. The researcher applied a case study consisting of 92 prospective teachers and these teachers involved in the discussion topics, social activities, and community service projects on the FB group. The researcher chose the discussion topics weekly to make prospective teachers think about community problems and groups. The prospective teachers not only answered the related questions but also shared their ideas about these topics. The data was gathered thanks to the analysis of screen shots taken from the group on FB. In the study, the researcher also applied 12 questionnaires to provide more considerable results about what prospective teachers think on these topics. As a result, Keleş (2018) observed that there was a social, cognitive, and learning environment in the group of FB. Moreover, it was stated that FB supported the teaching process for both teachers and students and ensures that responsibilities were shared during the teaching process. It was also observed that the learning groups created through social media contributed to communication and socialization among prospective teachers. Furthermore, it was stated that the studies carried out on FB contributed to the increase of social awareness among pre-service teachers in that group.

Bexheti et al. (2014) investigated teachers' use of social media as a tool of learning and teaching process. As a result of his analysis, it was found that teachers used social media to teach for different purposes. It was stated in the study that teachers used online video most in the class among other social media tools. Additionally, it was revealed that teachers found social media tools beneficial to their teaching skills.

Çelik (2002) investigated prospective teachers' use of FB, their perceptions on the usage of FB as an educational tool, frequency of their FB usage, the effect of FB on academic processes of teachers, and their tendency to use social networks. 1066

prospective teachers who are members of FB and who study at different departments of an education faculty participated in the study. The pre-service teachers answered the interview form consisting of 5 scales with 15 sub-dimensions and 6 semi-structured open-ended questions. Research findings showed a significant difference in many variables including female/male students' perceptions on the use of FB as an educational tool, the purpose of teachers' using FB, frequency of teachers' FB usage, the effect of FB on academic processes of teachers. Opinions of the pre-service teachers about using social networks were obtained through a semi-structured interview form and content analysis method was applied in the study. Communication was the most repeated theme in students' use of social networks. The responses of pre-service teachers regarding the benefits of using social networks were placed under the themes of communication, sharing information about the subject, following innovation, knowing, and helping students. The answers given to the question of using social networking sites for the benefit of students were gathered under 6 themes. While "Communication" took first place in the frequency distribution, and "Cooperation" was the last.

In recent years, Hur and Hara (2007) have investigated the community of teachers, "INDISCHOOL" to find the factors empowering online communities for K-12 teachers. Through interviews, post reviews, and participation in discussions, the researchers revealed eight supporting and four obstructive factors that strengthen an ongoing online community for K-12 teachers. For each category, factors were divided into three subgroups: internal factors, external factors, and outcome factors. Supporting Internal factors: a) autonomy (the group's self-management without being dependent on the outside) b) having a sense of ownership, (members' owning the group) c) accepting the values of the group (the idea that joining the group results in self-learning and the idea that students learn better with the ideas and resources they have acquired from the group). Supporting external factors: a) online and offline communication (both online and face-to-face communication); b) providing an easy way to use technological systems. Supporting outcome factors are: a) helping new teachers become confident teachers; b) helping to overcome teacher isolation; c) meeting the individual needs of teachers. Obstructive internal factors are a) lack of self-confidence of teachers; b) teachers' negative experiences in previous online environments. While obstructive external factors are lack of technological support,

obstructive outcome factors are; to discourage teachers from active learning, that is, teachers are information consumers instead of being producers of information and resources; to use resources without adapting them or considering their benefits; to ignore the theoretical dimension of teaching and to focus only on the application dimension.

Hur and Brush (2009) carried out a research investigating an online community of literacy teachers. In this research, the researchers conducted this study to show what activities teachers communicate with each other, what kind of information they share, and what motivates teachers to share information online. The data of the study was gathered through online observation of the messages of the Literacy teachers and interviews with volunteer members. Thanks to these data, the type, and frequency of the activities that teachers are interested in were observed. 576 messages were observed and collected from the first weeks of February of 2003, 2004, 2005, and 2006 for the data. Moreover, teachers were interviewed through semi-structured interviews about the factors motivating or hindering their collaboration. 20 volunteer teachers (3 male, 17 female) participated in the interviews. As a result of the data analysis, 9 kinds of activities have emerged regarding for what kinds of activities teachers interact with each other: a) request: request for information, opinion or participation; b) appreciation: giving thanks for the work done (such as sharing of activities); c) administrative: administrative purposes of a listserv, using listserv as a communication tool; d) announcement: announcement of related news; e) apology: apologizing for the mistake; f) explanation: providing detailed information on the topic; g) compliment; h) empathy; i) sharing information. Among these activities, the study showed that teachers use the tool at most to share information (60.8%). It has been stated that there are two types of information-sharing regarding what kind of information teachers share: a) book knowledge: theories (laws, principles, standards and printed publications); b) practical knowledge: it has been divided into three categories; personal opinion, personal suggestion, and institutional practice. Institutional practice knowledge refers to the idea that an organization has implemented now or in the past. In this study, it has been found that 7 different motivation types motivate teachers. The motivation types were related to participation in society, respectful environment, teachers' interest, and technology. In addition, it has also been found that five obstructive factors prevent teachers from sharing information: lack of knowledge, lack

of time, technology, reluctance to cause discussion, and the participants' negative attitude.

Hur (2007) investigated the reasons why teachers participate in online communities to improve their professional development. A case study was used as a research method in this study. The data was collected from 4 different sources. They are interviews with 31 K-12 teachers who take part in online communities, online posts, member profiles, and community principles. As a result of data analysis, Hur (2007) concluded that teachers joined online teacher communities for 6 reasons: (a) sharing emotions; (b) discovery of new ideas; (c) search for suggestions; (d) experiencing a sense of friendship; (e) dealing with teacher isolation; (f) taking advantage of online environments. Hur (2007) stated that in previous studies, sharing information among teachers in online environments was investigated, but sharing feelings among teachers was rarely investigated. Therefore, this research has shown how teachers supported each other by providing emotional support in online communities.

Duncan-Howell (2010) examined 3 online communities which are Australian local state-based, national Australian community, and the international community. A survey was applied to show teachers' professional development, attitudes, skills, and teachers' demographic information in these professional communities. 98 members of these communities responded to the survey. The survey included 25 open-ended and closed-ended questions related to three topics; background, professional development, and online communities. Regarding the research results, it was seen that teachers tried to improve their professional development by attending conferences, seminars, and courses. It was found that the teachers who were members of the online community spent 1-3 hours a week in these communities. Moreover, it was shown that teachers searched for the classroom management strategies that were related to their own goals and their professional development goals were to have positive changes in teaching practices and improvement in student learning. The survey results also showed that teachers wanted to have control in choosing the content of their professional development program. Also, the research results revealed the fact that being a member of online communities offers teachers various resources for their professional development. Additionally, 86.7% of the participants thought that online communities were an essential part of professional development.

Köşkeroğlu Büyükimdat et al. (2011) investigated how pre-service IT teachers benefit from FB and their opinions on the use of FB as a professional development tool. For the quantitative part of the study, 338 pre-service IT teachers from three different universities participated. In this study, the mixed research method was applied. The participants responded to a twelve-item questionnaire including two parts; personal information and the use of FB. The qualitative part of the study aimed to examine students' views on the use of FB as a professional development tool. For this part, a structured interview consisting of four questions was applied to four pre-service teachers who were intentionally selected and the interviews were coded according to content analysis, and the codes were categorized under the headings of three themes. They are "FB as a communication tool", "FB use for sharing", and "FB use for socializing". The survey results showed that 87.9% of the students were FB members, and teachers used FB at most to share interesting links (46.1%) and to chat (17.8%). In addition, teachers also used FB for educational purposes (76.4%). On the other hand, it has been stated that pre-service teachers may have positive effects on their professional development by communicating with teachers and colleagues and FB will help them in their professional development. Moreover, it was concluded that being a member of academic groups would help socialization in these groups. As a result, the pre-service teachers believe that FB will be effective as a professional development tool when they use FB to share and socialize.

Çam (2012) analyzed and interpreted the responses of 1494 prospective teachers for three scales to investigate their addictions and general purposes for FB usage. The results of the study revealed that pre-service teachers used FB for educational purposes, for collaborating, and for sharing resources and materials.

Atabek (2013) conducted a research in which he investigated the usage of FB by prospective teachers in Turkey and The USA. While 641 prospective teachers from Turkey participated in the research, 121 prospective teachers from The USA participated in the research. The researcher has wanted to shed a light on the prospective teachers' perceptions on FB, whether they like FB or not, whether they are motivated to use FB or not, what factors motivate them to use FB. The study showed that most of the prospective teachers had a positive attitude towards FB except for some problems and most of the prospective teachers associated FB with learning. As a result of the research, it was observed that pre-service teachers were motivated to use

FB, and one of the factors that motivated them to use FB was learning. Moreover, it was observed that most of the prospective teachers associated FB with the teaching profession and indicated that the use of FB had some advantages on their teaching skills. They mentioned that the use of FB allowed various groups and pages to be implemented for educational purposes. In addition, the prospective teachers stated that FB was more advantageous than other social media sites, and it was better in quality, practicality, and usefulness.

Şumuer et al. (2014) investigated FB use of primary, secondary and high school teachers. The researchers investigated how often and how much teachers used FB. The researchers also examined the personal, educational and professional activities of teachers on FB. According to the research results, it was revealed that teachers see FB as a part of their daily activities FB; they leave most of their information public on their profile, they think it is important to adjust the settings. It was revealed that more than 95% of the teachers in the study use FB to communicate with others, read and share posts. Moreover, it was concluded that 61.7% of the teachers use FB for fun. The study also showed that teachers use FB to share information (61.9%), to share resources (48.7%), to reach other sites or applications (%11.9), to participate in discussions (1.4%). On the other hand, the analysis of the interviews included that teachers used FB as material, activity, sharing information, student activities, and announcements. Regarding the purposes non-related to the teachers' professional development, it was also concluded that they used FB to obtain current information (65.1%), to share information with other teachers (62.0%), to follow events (51.9%), and to share their project ideas (45.6%). The qualitative analysis results of the study also supported these results.

Selvi (2021) investigated Facebook groups used as a professional development tool for English teachers. In this study, the number of members of FB groups, FB group names, their descriptions, and profile photos were analyzed. Moreover, the posts and group activities shared in July in two different groups were examined. The results revealed that these FB groups could be defined as utilitarian and socially-oriented. The results also showed that these groups could be used for interaction with each other and giving or asking for help on professional and administrative matters.

2.10 Summary

In this chapter, the literature on formal and informal mentoring, professional development, PD models, PD activities, PD activities on social media, FB as a PD tool was reviewed and the studies carried out about these topics are presented.

Teacher education is an indispensable component of learner education. In order to support their professional development, teachers apply different methods. E-mentoring is one of these methods teachers apply. Teachers use various online platforms to share and get knowledge for their teaching skills. Moreover, teacher professional development was outlined in this chapter through some Teacher PD Models explained by Guskey (2002), Kennedy (2005), Diaz-Maggioli (2004). They stated that these models provide meeting needs and lacks related to PD for teachers. Reflection is also applied by teachers in classroom practice to learn from their own performance. Schön (1983), Kolb (1984), Gibbs (1998) described types and stages of reflection models. Additionally, social media is another aspect that teachers enhance their PD. Teachers make use of different social media platforms to improve their teaching skills. They share and get various resources, mentor each other and follow new innovations about teaching by using these platforms. FB is the most popular platform used by teachers as an educational tool. It has been clearly reflected in the literature that use of social media as an educational tool has a great significance for teaching and learning process. Moreover, it has been found use of social media, especially FB groups contribute teachers in many aspects. And these aspects were given in the studies. However, there is a lack of related study to reveal perceptions of EFL teachers who are member of FB e-mentoring groups. Therefore, the findings of this study may fill a gap in the literature and explore understanding of teachers using these groups.

CHAPTER III

METHODOLOGY

3.1 Presentation

In this chapter, detailed information about research design, participants, data collection, data analysis and validity/reliability are provided.

3.2 Research Design

Case study is applied to explore a real life and a multiple bounded cases and collect detailed information using different data collection tool. Case studies may be a single individual or the activities of several individuals (Creswell, 2009). Since this research aimed to analyze a FB mentoring group as a PD tool for teachers, case study design was conducted in this research study. Simons (2009) emphasizes that a case study is research-based and consist of different methods. In this study, a case study consisted of a mixed method research design. Mixed method design contains both qualitative and quantitative points of views (Shorten & Smith, 2017). In this study, a quantitative perspective was obtained through teachers' entries and comments shared on ITE. Their frequencies were analyzed both qualitatively and quantitatively. On the other hand, the qualitative data were provided through interviews conducted to teachers in order to understand their perceptions on e-mentoring groups as a PD tool.

.

3.3 Characteristics of the group

ITE (https://www.facebook.com/groups/InnovativeToE/) is an e-mentoring group in FB for English Language teachers founded on the 7th of July in 2009. It has 274.559 members and 4 admins today. ITE is an open group where everyone can see the posts shared and can interact with others in this group. However, sharing any posts there requires being a member of this group. In this group, only posts that are related to English language teaching and learning are approved; therefore, it was chosen for the current research. The group members are accepted to the group by the admins. The basic criterion to be accepted to the group is being an English teacher. In addition, students who are enthusiastic to learn English are accepted into the group as well. The members can share posts including photos, videos, surveys, and links. Moreover, they can ask questions about different topics and they can add their locations to these posts. The members can edit or delete their posts whenever they want. If the members delete their posts, all comments are deleted herewith. Figure 5 shows the area where the posts are shared in the group.

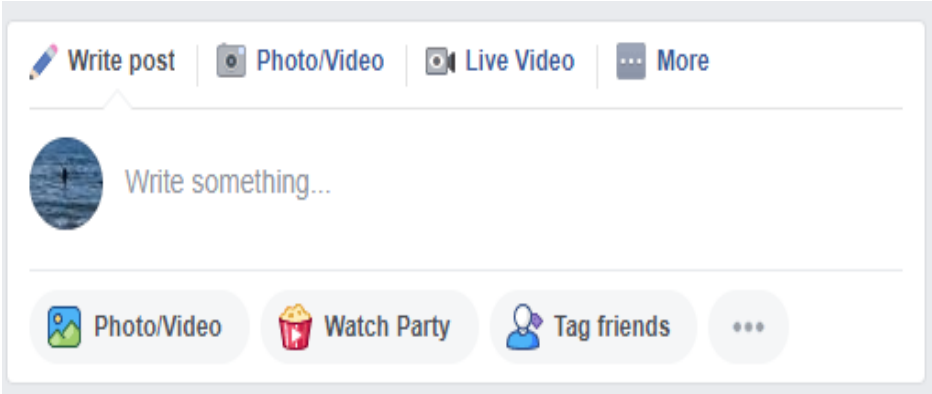


Figure 5. *Post area on Facebook*

Comments can be made under posts, and every member can write their comments. Moreover, they can add photos, videos, or stickers to their comments. Figure 6 shows the area where comments are written under the posts in the group.

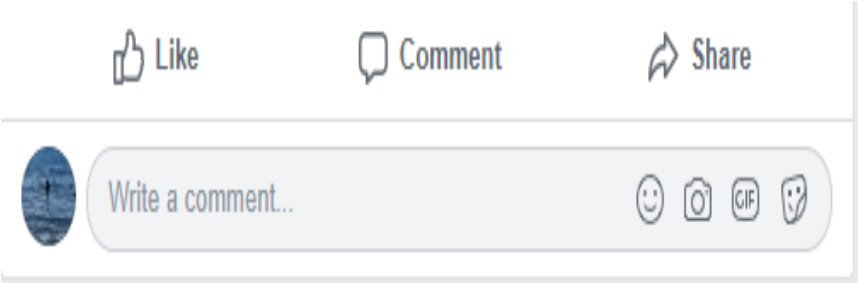


Figure 6. *Comment area on Facebook*

Everyone whether they are members of this group or not can like the posts or comments individually. Clicking "Like" shows that you enjoy this comment or the post. If the member changes his mind, they can click "Like" and then select "Unlike". Figure 7 shows the comments written under a post in the group.

Figure 7. *Samples of comments written under a post*

The posts are shared in "Discussion" section in the group. The members share their posts in this section. Moreover, they can add photos, videos, surveys, links, and files here. Apart from this section, there are other sections in this group such as "*Events, Files, Albums, Photos, and Recommendations".* There are members and admins in the "Members" section. It is possible to see here when and by whom the

members were added. To see any member's page, the name of the member should be clicked. There is not anything in the events section. "Photos" section includes all chronological photos and videos. Files section contains all shared documents such as texts, lists, informative documents, and surveys. They are uploaded by the members to the group on the discussion page in which the files are ordered chronologically.

There are 3 different options on the discussion page to get the news; they are "*New Activity, Recent Posts, Top Posts".* There is no opportunity to look at what is shared in the group in any month or year. The most recent post and the most recent comment about a post are seen first on the discussion page. For example, when a new comment is written under a post in 2012, it is seen again on the discussion page. Therefore, the flow of posts is changeable and not ranks according to their dates. The data were gathered from the discussion page. Although the researcher wants to get the data chronologically, this was not possible. But, the researcher still tried to gather the data between determined dates. If a teacher wants to get ideas about a topic, they can write a keyword to the search section. With the right keyword, teachers can reach the topics that they want to get ideas or information about. Apart from keyword research, it is rather difficult to get the posts shared before. The lack of topic titles and subtitles in this group is a need that must be improved by admins. Therefore, he researcher made contact with the admin and indicated this need.

Consequently, this group aims that English teachers from all around the world to exchange ideas, tips, and materials to improve their teaching and achieve their professional goals. This group approves the posts that are directly related to English teaching and learning. Except for these posts, any posts will not be approved to the page because the admins want a peaceful, informative, and improving platform in this group. When anyone shares a post not related to the purpose of this group, admins directly delete it. Moreover, admins expect the members are respectful and considerate to each other. The members in the group are between the age between 20 and 55 while the active users of this group are between the age between 25 and 35 considering the posts shared on the discussion page. Apart from experienced teachers, pre-service teachers and the students of the university are also members of this group to benefit from the skills and ideas of experienced teachers. Additionally, some academic staffs from different universities contribute to the group with their various ideas.

3.4 Participants

In this study, an e-mentoring group on FB called as “Innovative Teachers of English” (ITE) was investigated. It is a very crowded group used by 290.044 members who are English teachers from all around the world to exchange ideas, tips, and materials to improve their teaching and achieve their professional goals. A purposive selection was used to determine this group for this study. Because the group has thousands of members and the majority of group members are EFL teachers, this group was selected among other similar groups on FB. Participants in this study are the people who are members of this e-mentoring group on FB. But, the data was gathered from the members who created an entry or made a comment between the given study period in the study.

Table 2. *Demographic information of participants who shared posts on ITE*

Number of group members	297.524
Number of members who posted	113
Gender of members who posted	50 males / 63 females

For the interview part of the study, convenience sampling model was used, and 10 participants were selected among the teachers who are members of ITE and volunteered to participate in the interview. While determining participants, the criteria including being a member of ITE, active on the group, easy accessibility and availability at a given time was taken into account.

Table 3. *Demographic information of participants who interviewed*

Gender	Age	Teaching experience	School-level	Membership duration
Female	25	4	Primary	2 year
Male	30	7	High School	1 year
Male	25	3	High School	3 year
Female	25	4	Higher Education	2 year
Female	31	7	High School	2 year
Female	25	3	Primary	1 year
Female	29	7	Secondary School	3 year
Female	29	5	High School	6 month
Female	29	5	High School	9 month
Female	28	5	Secondary School	3 year

Demographic information of 10 participants including gender, teaching experiences, and school levels of the participants are shown in Table 3. As Table 3 shows, the participants have 7-3 years' experience. The school levels that they teach are different. Their ages rank between 31-25. They have been using this group for at least 6 months.

3.5 Data Collection Tools

In this study, data was collected from two different instruments. The first instrument of this study is the comments, posts, and entries shared by members of this group between 3rd March and 15th April. The data was obtained from members' entries and comments that were shared by them voluntarily. The entries and comments shared between determined dates were saved to the word documents. 174 entries and 1935 comments were recorded and the data were analyzed in detail.

In the qualitative collection process, semi-structured interview with 7 open-ended questions was conducted to 10 participants who are members of ITE. The interview included 7 questions to gain a deeper understanding of participants' opinions on usage of FB groups as an educational tool. In order to determine interview questions of the study, the relevant studies were revised and the first draft of the questions was constructed. Then, this draft was shown to the colleagues with master and doctorate degree in English Language Teaching and the final version of questions were properly

created in light of the comments and feedback provided by them. At first, the questions were tried out with several educators to avoid any ambiguities. It was understood that the questions used in the interview were clear and appropriate for the current study. The interview questions aimed to explore participants' general feelings about use of FB e-mentoring groups to as a PD tool. The questions used in the interview were given in detail in Appendix C.

3.6 Data Collection Procedure

In this study, the group members' entries and related comments were investigated to understand their purposes of using ITE. In this context, a message was sent via FB messenger to the admin of this group and given information about the research. The data collection process started after written permission from the admin of ITE. The data collection process was conducted in 2 different ways. Firstly, the entries shared during the given period were examined and recorded. Because it is very difficult to analyze the whole entries in the group, a six-week duration was selected randomly. The duration was selected between March 2nd and April 13th in 2019. When the records were completed, the final document was 320 pages with a 129,947-word count. Then, the data were analyzed according to the codes obtained from the previous study (Cinkara & Arslan, 2017). Each entry was tagged by looking at its purpose. Moreover, the number of comments and the total number of words for each entry were recorded to see interaction on them. This data constructed the basis for this study.

A semi-structured interview was conducted to learn about teachers' opinions about FB groups as an educational tool. The interviews took place in Turkish to help teachers feel relaxed and express themselves better. The interviews were carried out over mobile phone. The recordings of the interviews were listened and scripted to the word documents. All transcriptions were checked twice. The interviews lasted 3-5 minutes on average and all participants were willing to express their ideas for each question.

3.7 Data Analysis Procedure

In this study, the content analysis method was used to analyze the data. Content analysis can be used in an inductive or deductive way according to the purpose of the study. An inductive approach is recommended when there is not enough former

knowledge about the knowledge (Lauri & Kyngäs, 2005). The headings and categories were organized to describe all aspects of the content (Burnard, 1996). This process allows open coding and the creation of new categories. The aim of creating categories is to increase understanding of the knowledge (Cavanagh, 1997). Deductive content analysis is used if the researcher wishes to retest existing data in a new context (Catanzaro, 1988). This may include testing concepts, categories, models, or hypotheses (Marshall & Rossman, 1995). In this study, both deductive and inductive content analysis was conducted. The code headings based on entries' content and purpose created by Cinkara and Arslan (2017) were reorganized. The codes consist of PK, CK, PCK, Resource, Career development, Collaboration, Reflection, and Not Applicable. The head categories and sub-categories are given detailed in Appendix C. The data were examined deductively regarding the codes. Then, they were checked by other researchers to increase the reliability of the study.

Regarding 8 main codes and 24 sub-codes, the posts were analyzed and were recorded to the table on Excel Processor. After that, each entry was examined and categorized according to the codes. For example, if the entry is about classroom management, it was recorded under PK category. At the same time, the number of comments and words for each entry was counted and recorded on Excel Processor. For each entry, only one code was determined and recorded. After the analysis of data, the entries recorded with the same code were gathered. The number of these entries was collected and recorded to the chart on Excel Processor under each category. Additionally, the number of words and comments for these entries were collected and recorded to this chart. The frequency rates of categories were determined through Excel Processor. (See Appendix A)

The qualitative data were analyzed inductively and with the help of content analysis method. The ultimate purpose of the content analysis is to provide the reader with interpreted findings; thus, the gathered data is examined and interpreted to reach certain results (Yıldırım & Şimşek, 2013). Regarding the research questions, several English teachers including the researcher himself examined the transcriptions independently, generated code lists for each question. After that, possible codes were determined. Lastly, agreed statements were grouped into codes. In this context, the gathered data obtained from the teachers' responses were examined according to the

determined codes. The findings were interpreted by quoting directly from the responses obtained from teachers.

3.8 Validity and Reliability

Validity and reliability are criteria defining research's quality. Validity is defined as the appropriateness, meaningfulness of a study while reliability is defined as the consistency of scores or answers in a study (Fraenkel & Wallen, 2010). On the other hand the reliability of a study shows the consistency of data. Validity and reliability are necessary to make correct conclusions and to be sure of the consistency of scores obtained in research.

In qualitative studies, there are 4 criteria to enable validity and reliability. They are Credibility, Transferability, Conformability, and Dependability (Lincoln & Guba, 1985). In order to enable a study credible, the techniques, such as long-term interaction, continuous observation, expert opinion, are used (Lincoln & Guba, 1985). Polit and Beck (2004) claim that to increase the reliability of the study, it is necessary to show a relationship between the results and the data. Appendices, figures, and tables are used to show links between the data and results. The results are described with the help of the contents of the categories (Marshall & Rossman, 1995). In the current study, expert and other researchers' opinions are used during data collection and analysis process to make the study reliable. In order to show the reliability of the current study, questions constructed by Miles and Huberman (1994) to determine reliability of a study were responded and given in the Table 4.

Table 4. *Questions determining reliability of a study by Miles and Huberman (1994)*

Questions	The answers given by the researcher
1. Are the research questions clear enough?	First of all, the relevant studies were analyzed to formulate the first draft of research questions. Secondly, this draft was also shown to the supervisor of the research. Then, in light of the comments and remarks provided by the supervisor, the questions were properly created based on the purpose of the study.
2. Is the data proper in terms of participants, context, and time?	The data of this study was obtained from a group called as "Innovative Teachers of English" which English teachers actively use. Before the study, the researcher often visited ITE and followed the posts which were mostly related to teaching English. Additionally, the researchers analyzed the group posts and decided that 6-week collected data could meet the purpose of the study.
3. Have the data been obtained according to the research questions?	In light of research questions, the data was obtained from posts shared in the group and interviews applied to 10 participants. Regarding the research questions, the findings were analyzed and discussed by the researcher.
4. Have the codes been checked?	In this study, deductive content analysis was conducted. The codes created based on entries' content and purpose were obtained from a study by Cinkara and Arslan (2017). And they were re-organized by the researcher and supervisor.
5. Has any expert observed the codes?	In this study, the last versions of codes were constructed by regarding expert opinions.

As given in Table 4, the questions related to reliability of the study were tried to be answered. For the current study, researchers', experts' opinions and comments were taken into consideration in order to determine research questions, interview questions and codes. Moreover the findings were examined with the help of other researchers.

3.9 Summary

In this study, a FB group called ITE was researched. This group consists of thousands of English teachers who are around the world. The participants of the study are both the members who shared posts and commented for these posts during defined dates and the members who were interviewed. For this study, a mixed method was applied and the data was collected from two different instruments. Firstly, 6-week

group entries were gathered and recorded on Excel Processor. The data was analyzed and categorized under the codes taken from a study (Cinkara & Arslan, 2017). Then, an interview on teachers' perceptions on use of FB groups was applied to 10 teachers who are member of ITE. The content analysis method was used to categorize these entries and define the themes used most in interviews. The findings were interpreted by exampling some entries gathered for the data and by quoting directly from the answers obtained from teachers participating in the interview. The data was observed and the findings were checked by another researcher for validity and reliability of the study.

CHAPTER IV

FINDINGS

4.1 Presentation

In this study, it was aimed to investigate for what purposes members of ITE use the group as an educational tool and what the perceptions of members on usage of this group. In this section, quantitative data obtained through Excel Processor and qualitative data obtained through interviews are provided.

4.2. Quantitative Findings of the ITE Entries

4.2.1 Findings Related to First Research Question: What are the topics EFL teachers post on ITE?

ITE is an open group whose members and everyone can use to improve themselves on their teaching skills. In this study, 6-week entries of members were recorded, and these entries were examined according to their purpose and analyzed under 8 main categories and 24 sub-categories on Excel Processor. According to the analysis of entries in ITE, eight main categories observed are PK, CK, PCK, resources, career development, collaboration, reflection, and unrelated.

Table 5 shows the analysis of entries quantitatively including the number of entries, comments, and words during the 6 weeks. The results are given in Table 5 below:

Table 5. *Summary of initial quantitative findings*

Total number of entries	Total number of comments	Total number of words
174	1974	62281

Table 5 demonstrates the total number of entries by teachers is 174 and the total number of comments made for these entries is 1974. The total number of words used for entries and comments is 62.281. The data collected and analyzed is given in detail in Appendix A. A simpler view of the data including thematic codes is given in the figures below. Figure 8, 9, 10 shows the number of entries, comments, and words for each category.

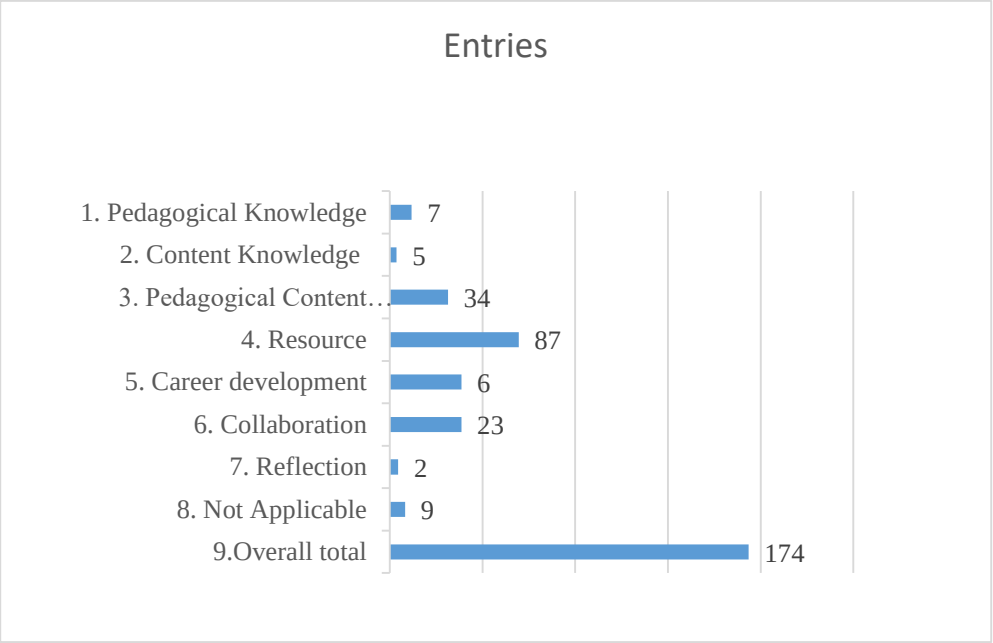


Figure 8. *Number of entries for each category*

Figure 8 shows the number of entries for each category. Resources (N=87) is the most active category in the given 6-week period. PCK (N=34) is the second most common category. The least active category in terms of the number of entries was Reflection with only 2 entries in the 6 weeks. Further analysis revealed the results in

terms of the number of comments in each category and the results are given in Figure 9.

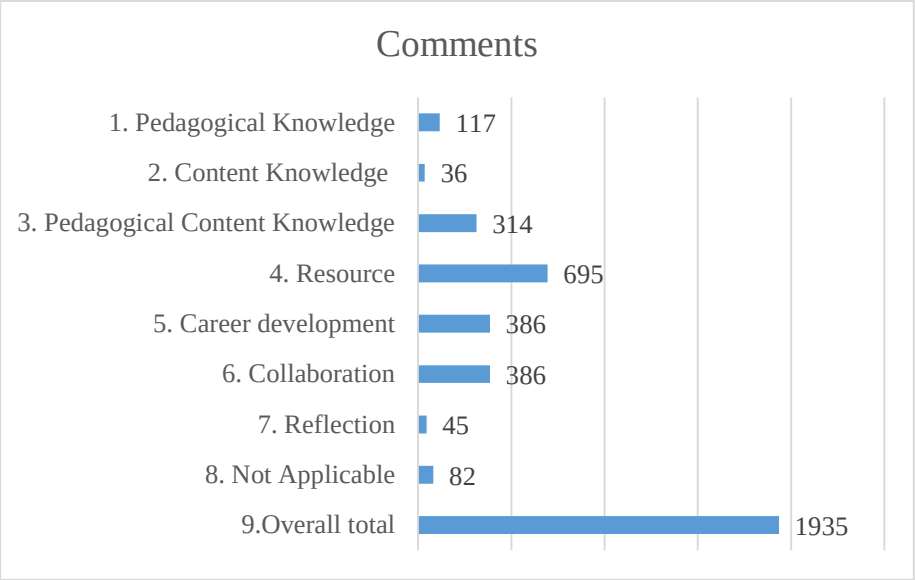


Figure 9. *Number of comments for each category*

As indicated in Figure 9, the results for the most common category in terms of number of comments are mostly parallel with the category most common in terms of number of entries. The most active category in terms of the number of comments was Resource (N=695), in which members ask or share different materials to teach English. The second most active category was Collaboration (N=386) which is different from Figure 8. On the other hand, the least active category for the number of comments is not Reflection (N=45) but CK (N=36). For each category, the number of comments is different. That is; although the number of entries is high for a category, the number of comments could be low. Figure 10 shows the number of words for each category.

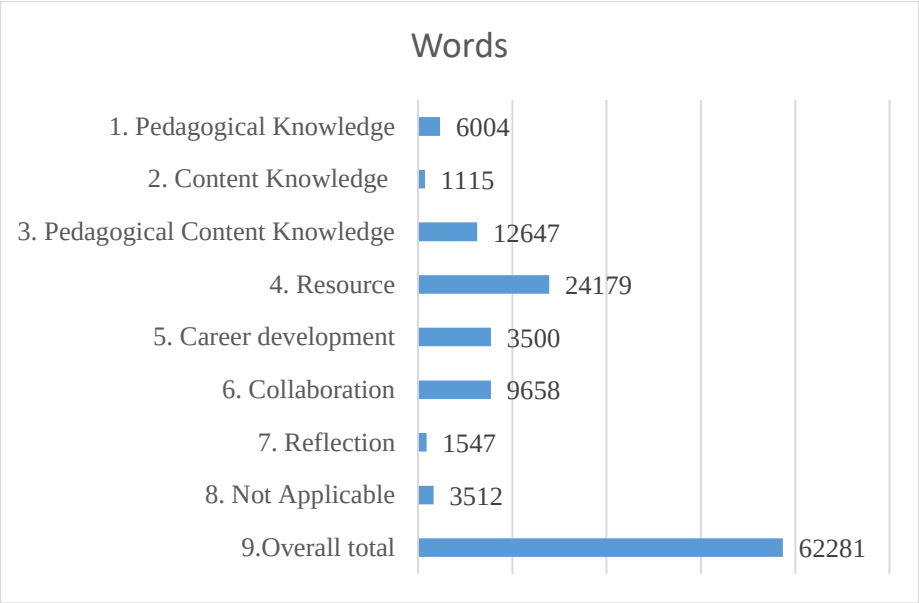


Figure 10. *Number of words for each category*

As Figure 10 shows, the most active category in terms of the total number of words in comments is still Resource (N=24179). The closest number of words was observed in PCK with 12647 words similar to the result in Figure 8. Figures 8, 9, 10, revealed that Resource is the most commonly used category among members. They actively share their entries and write their comments on Resource category. This shows that members of ITE mostly need different materials for their teaching. They share their various materials on discussion page in this group.

In this section, the data obtained from ITE group during the given time and the interviews conducted with the participants were analyzed qualitatively. Each main category and subcategory were examined separately. Each category was explained clearly including entries, comments and words during the given 6-week time period. The entries and comments were directly taken from the data and they were not edited in terms of grammar. The name of members on entries and comments were deleted.

4.2.1.1 Pedagogical Knowledge

Pedagogical competence is the ability of a teacher including their theoretical knowledge and its application on their teaching skills. As Mulyasa (2004) said, teachers should have the ability to provide good classroom management, time management, discipline, teaching strategies in the classroom. EFL teachers deliver and get information from ITE to improve their classroom management skills. And the data under this category included entries that are about PK of ITE members.

The 2 major subcategories created for this category were classroom management and other issues. Almost 4% of the 174 total entries were recorded under PK Category (N=7).

Classroom management

ITE members use the group to find new solutions to keep classrooms more peaceful and manage the class more effectively. The participant in Entry 5 below aimed to request classroom management strategies while teaching preschool and primary school kids.

> Hi amazing teachers! One of our teachers is doing a short Teacher training session on classroom management. What do you think are the main points she should focus on to help both preschool and primary school kids? I would like to avoid labels such as misbehavioured children and terms such as discipline. More focus on positive methods and strategies. Please share any articles, webinars, websites or youtube videos that may be useful. (Entry 5)

Other issues

The participant in Entry 150 below aimed to get information about how to motivate secondary students.

> Hello. I would like to ask you for a piece of advice. How do you motivate secondary students? They seem to be so distracted, chatty, noisy, making jokes and laughing at each other. Not just in my class but also at school. What's going on with this generation?? How can we calm them down and make them think??? There are nice activities in British council learning teens but I am slowly running out of ideas. Share your experience (Entry 150)

4.2.1.2 Content Knowledge

Teacher CK is what teachers know to teach a subject to learners. According to Shulman (1986), CK is a kind of professional knowledge. It represents teachers' knowledge, skills, and understanding of the subject matter. Almost 2% of the 174 total entries were recorded under CK Category (N=5). The 2 major subcategories created for this category were vocabulary and grammar. Teachers ask some questions about the usage of some words or grammar. Under this category, it was seen that entries were created as a link or visuals. Seeing that the number of entries of this category, it can be said that teachers do not usually ask their questions about the language itself. The entries under this category are given below.

> Does "not going to not" make your head spin? e.g. Well...I'm not going to NOT eat the red velvet cupcake. On the other hand, I'm not going to not have a huge wedding just because it's causing Ricky and Amy problems. President Trump 'not going to not accept money for a border wall'. I'm not going to not wear makeup or do my hair to avoid people thinking I'm superficial. We're not going to not be part of that conversation. (Entry 78)

The participant in Entry 78 above had difficulty in grammar structure and aimed to get information about the usage of the defined grammar structure.

4.2.1.3 Pedagogical Content Knowledge

Shulman (1986) proposed that PCK is a bridge between knowledge and the practice of teaching. PCK includes its own knowledge for teaching. It combines content and pedagogy with each other and represents knowledge of both particular topics, problems, or issues and how to adapt them with the interests and abilities of learners. Furthermore, PCK is almost everything a teacher has in teaching a particular topic, and it is a transition between teacher actions, reasoning, beliefs, and knowledge. There were 34 entries in the following eight sub-categories: reading, writing, speaking, listening, assessment, use of English, pronunciation, young learners, and general. Almost 19 % of the 174 total entries were recorded under PCK Category (N=34). Members of the ITE mostly shared ideas about how to teach use of English (N=7, 20.59%) and pronunciation (N=7, 20.59%), and it shows that these two sub-categories

comprised half of the entries in this category. The entries under this category were given below. Members in entry 8 and 42 asked advice from other members on how to teach lengthy articles in EFL classes.

> Teachers, give me some unusual ideas of what I can do with a lengthy article at B2 level - it is quite meaty with lots of new vocab, too long for a running dictation or to be cut up and put back together... but it is interesting and culturally relevant so it might generate some interesting discussion. Plot twist : no tv or computer in the classroom, haha. (Entry 8)

> What is the best way to teach reading comprehension for senior high school? give me some advices. (Entry 42)

A member in entry 172 asked for materials for young learners.

> Please where can I get material for five-year-old children? Thanks! (Entry 172)

In entry 72, a member asked for colleagues' suggestions for a speaking activity.

> Hello fellow teachers, any suggestions for a fun speaking activity to practice Conditionals? (0, 1st, 2nd, 3rd) (Entry 72)

In entry 62, a member asks for suggestions to create an assessment to evaluate the English level of employees.

> Hello everyone! I'm an English teacher in Hungary. I'd like to ask for suggestions about how to create my own English assessment test for a company, or where I can find useful resources in this respect. I will have to evaluate the level of 10 employees, whose English is quite low. I thought grammar-vocabulary and reading should be checked, yet I'm open to tips and info. Many thanks! (Enrty 62)

In entry 83, a member asks for colleagues' ideas about different activities which can be applied in EFL classes.

> Hi guys ! Greetings from Honduras, Nice to meet you. Guys I really need your help, I'm taking the English methodology subject at college, so I'm supposed to teach this topic next week " the simple present tense Affirmative sentences with action verbs" What I need is your advices and your ideas about what activities can I use with the students. It is going to be my first

time at teaching so I would like to know your thoughts. My audience would be 6th graders. Please guys help me I will appreciate your help. Regards. (Entry 83)

In entry 132, a member wants to learn the latest innovative approach to teach a grammar form to ESL learners. The member also criticizes grammar books because the grammar rules are not given in detail in these books.

Hello everyone! I would like to know what are the latest innovative approaches in teaching the present perfect tense to ESL learners ? Also, why is it that most grammar books don`t even mention the four different readings of the present perfect tense like - 1. Experiental 2. Continuative 3. Resultative and Perfect of recent past ?(Entry 132)

In entry 9, a member asks a way to introduce some letters to young learners.

Any ideas for introducing long /I/ (Y- ie- igh) for grade 1? Thanks (Entry 9)

In entry 43, a member wants to learn English words pronounced difficultly by students.

I'm writing an English pronunciation course and I'd like to help you as much as possible. I have a question for you: Can you tell me two English words you find difficult to pronounce? (Entry 43)

In entry 131, a member asks for suggestions from other teachers to improve his survey assessing the usage of chants by young learners.

Hi I am working on an action research project on using chants with young learners. I am designing the observation tools and a survey for the students. What do you suggest I should pay attention to? I want to see how using chants may improve the oral performance of students (Entry 131)

In Entry 16, a member wonders what different methods are used to teach English by other teachers.

Hello everybody. Please I need your help. Can anybody tell me what are the different methods of teaching English ? since I have to choose one method and make a project presentation in the university and I have no idea about any one of them (Entry 16)

In Entry 68, a member wants to learn new activities to teach days of a week.

Good morning! I have a group of students of 16 years old and I teach them the last day of the week at the last hour of the morning and so they are so tired. I need new and engaging activities so that they pay attention. Any ideas? (Entry 68)

In Entry 102, a member asks for ways, activities, and games to have students work together.

Hello, fellow English teachers, I have been trying for a while now to have my students work together, co-operate and build things together. I've been trying to avoid competition. But we have all been so used to competing ourselves and have been taught this way and have been taught to teach this way, that I cannot imagine how to give up this "strategy' and replace it with co-operation. For me, it is particularly difficult to imagine how to use board games or card games - which I have plenty of - in a co-operative manner. I have classes of about 30 students. Thank you for your ideas (Entry 102)

A few participants who attended the interview have stated that they applied the strategies or techniques shared in the group in their lessons.

I generally apply the techniques or strategies about teaching shared in the group. Before I apply them, I review them and try to integrate them into my lessons.

4.2.1.4 Resource

In this category, entries include resources that members share. The resources are divided into eight sub-categories. For each category, the number of entries, comments, and words were defined. The usage percentage of these sub-categories by teachers are; textbooks (N=1, 1,1%), resource books (N=4, 4,5%), online materials (N=15, 17,2%), tests (N=1, 1,1%), visuals and charts (N=21, 24,1%), plays to act out (N=1, 1,1%), games (N=13, 14,9%), songs and videos (N=25, 28,7%). Totally, there were 87 entries and 695 comments in this category. Almost 50 % of the 174 total entries were recorded under Resource. This showed that the percentage of this category

in all entries was highest among all categories. The entries under this category were given below.

In entry 50, the member asks for the materials and sites that he can improve his teaching.

> Dear colleagues, in order to improve my teaching English, I am looking for short stories which can be used in the classroom for levels A1 to B2. Can you please suggest a site or any material you have in mind? Thank you in advance.(Entry 50)

In entry 67, the member wants to learn suitable movies or series for his students to improve their language skills.

> Hello dear friends, I am looking for movies, series or TV programs which are suitable for 5th graders students to watch at home. Any suggestions will be appreciated 🙂:) (Entry 67)

In entry 99, the member asks for books that can be useful for his teenage students.

> Could you recommend me an interesting book with good monologues for teenage students? I'd like one of my students to take part in a reciting competition.
>
> (Entry 99)

In entry 169, the member asks for books for himself that improve his knowledge of English.

> Hey guys I'm looking for some reading material to improve as a teacher. I'm looking for more books on things like linguistics and education / learning in general rather than a "100 exercises to do with your student" kind of thing. Have you found any particular books you've read that have stood out?(Entry 169)

In entry 6, the member wants to learn other teachers' opinions about an application.

What is your opinion about Duolingo as English teachers??(Entry 6)

In entry 71, the member shares a site that is full of different interactive games that he created for children.

I have created a bunch of board game templates for teachers to use with students. Please feel free to use them, modify them, and share them with your colleagues and students. I have been sitting on them for 17 years, so I figured it was time to stop hoarding and share! I hope you find them useful.

BLOG.VİRTUALWRİTİNGTUTOR.COM

Create your own board games and card games from templates

Grab these free downloadable MS Word docx resources. Use them yourself to create a review game for your kids or students, or ask them to design their own games. There are 10 templates to choose from, and they are free from the Virtual Writing Tutor.

(Entry 71)

In entry 104, the member shares his website with other teachers including different worksheets which can be used in EFL classrooms.

All the teaching resources on my website are FREE. Take a look and tell me what you think. www.davlae.co.uk

(Entry 104)

In entry 69, the member shares an assessment test with others in the group.

http://englishxp.co.uk/teaching-res…/grammar-placement-test/

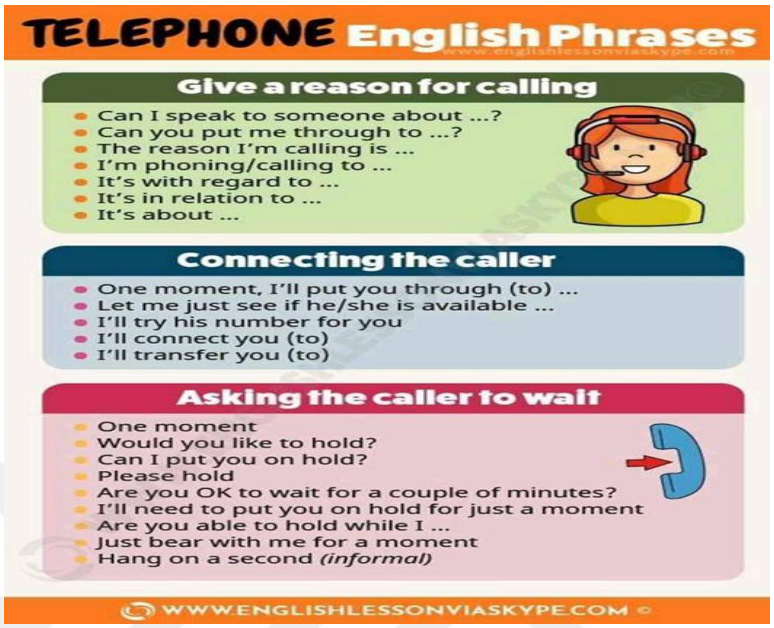
A grammar placement test consisting of 50 questions to test level from A1 - C1

ENGLİSHXP.CO.UK

Grammar Placement Test

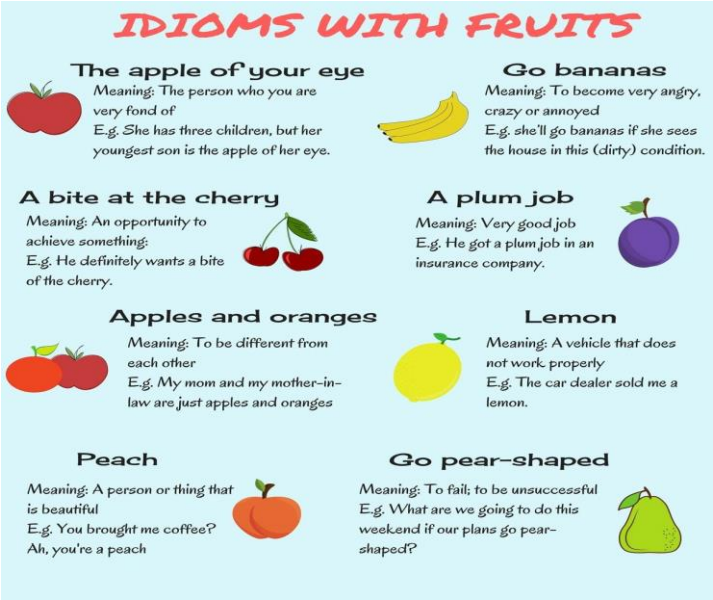
This Grammar placement test is designed to find out your level of grammar and to get a general idea of your level of English. The questions start easy and gradually increase in difficulty towards t… (Entry 69)

In entry 27, the member shares a poster including various dialogs that can be useful for students.



(Entry 27)

In entry 36, a member shares a poster including English idioms about fruits.



(Entry 36)

In entry 2, a member asks for different drama activities that can be useful for her adult students.

I've started a class teaching English to adult drama students. I've found some good material online, but is anyone here using drama with mature students? If so, do you have any ideas for activities? Role-plays and dramatic drills are a first port of call, but if you're doing something that works well, then please let me know. (Entry 2)

In Entry 1, the member shares a site including language games for teaching and practicing vocabulary.

Again shortlisted for the award. Please click the below link read the post and give a like, and share. Your support is very precious. Thanks to all.
https://www.facebook.com/117741954907367/posts/2536788649669340/

RAJCLASSROOM.COM

Language Games for Teaching and Practicing Vocabulary.

Topic: Language games Skill: Vocabulary Grade: Primary or Young Learners. Learning a language require...

(Entry 1)

In entry 7, the member asks for different level games and activities for her students.

hello, what would you suggest (theme, games, activities..) for a short event (2-3 hours) in which students will participate from different levels (age 16-25)? (Entry 7)

In entry 46, the member shares a site including various games to learn English.

In the second most popular post at engames.eu, you will find an infographic explaining the formation of questions with HOW. Check it out at

How in questions - Games to learn English

The word "HOW" is one of the most productive words in English. It helps us create meaningful questions and sentences. The word "HOW" combines with many other words to create these questions. In this post I try to introduce the basic phrases "How much", "How many", "How often", ... (Entry 46)

In Entry 20, the member shares a song that can be applicable for EFL lessons.

Hey Innovative Teachers, bring some fun into the classroom teaching English with this catchy song! ♪🎧♪♪

YOUTUBE.COM

Learn English with Taylor Swift - Shake It Off

If you love to learn English with songs, this is a great one: Taylor Swift - Shake It Off! This song is…

(Entry 20)

In entry 80, a member asks for songs that can be useful for his students.

Hello everyone! Hope you are all doing well.
Can you provide me with some good songs to play them for my students? Thanks in advance!
(Entry 80)

4.2.1.5 Career development

Teachers have head roles of an effective education system and their career development should be always constant and contemporary. In order to make difference in students' achievement, teachers should always improve their knowledge and teaching skills. Therefore, teachers' career development is an important part of the teaching profession.

This category contains entries and comments in which teachers exchange information for their career development. They ask for advice or share good ideas about how they can contribute to their career development. The entries and comments were investigated regarding career development and it was found that only 6 entries and 87 comments were shared under this category. This category was divided 4 sub-categories; overall professional-teaching (N=1, 0,57%), specific (N=0 0 %), degree and certificate programs(N=1, 0,57%), academic research (N=4, 0,2%). As it can be seen from the results, there were not related entries about specific categories contrary to the results of previous studies. Teachers did not share any posts asking for specific issues such as about the culture, people, between the defined dates. The members' entries to improve their careers were given below. For example, in entry 173 below, the member wants to learn the features of teaching English in some countries and asks for anyone that can help him to write his article.

> Hello all! I'm currently writing an article about teaching English in Portugal and Singapore which will include approximate earnings in different types of ESL teacher positions, government requirements for teachers, and best places to teach. If you teach there or know someone that does and can help me, please get in touch with me asap! (My deadline in Sunday night) Thank you. :)(Entry 173)

Many teachers search for certificate courses to know much about the English language and how it works. Especially, the teachers who are willing to make their grammar, lexis, and pronunciation better are looking for useful courses for themselves.

In entry 54, the member asks for suggestions about the best place for getting an English teaching certificate.

> Hello everyone ! My warm regards to the admins of this group for taking out time to manage the content and people on this page. I have a query. I'm planning to do CELTA outside India. Can anyone please recommend me some of the best countries in terms of learning and exposure ?(Entry 54)

This illustrates that this group provides good suggestions for the teachers who want to continue to learn and improve themselves.

In the academic research sub-category, members mostly share their research questions on teaching English in the group and ask other teachers to answer these questions. This sub-category constructed more than half of the entries in this category, which illustrates the teachers who are doing research use this group as a platform where they can get answers to their research questions. For example, the post below shows how researcher EFL teachers benefit from the group on FB. In Entry 76, the member shares some questions on the group and wants others to answer these questions for his research.

> Hi everyone. I'm currently doing research in native-speaker bias in ELT as part of my MA degree. I'm looking for teachers' experiences of being a 'native' teacher to support my own experiences. If anyone could answer these few questions, I'd really appreciate it! Thank you
>
> 1. If you've ever had experience of working with non-native English teachers, did you feel that there were any expectations of you as a native speaker? (For example, knowledge, qualification, education, accent, leadership skills etc. These could be positive or negative)
>
> 2.Have you ever noticed your students reacting/responding differently to different teachers because of the teacher's first language or accent/dialect? (If not other teachers, then examiners, members of staff, or even voices in listening exercises!)

> 3. Have you ever felt advantaged or disadvantaged for being a native speaker? (This can be during classes, in job interviews, or on school trips etc.)
>
> 4. As a teacher of English, what is your opinion on being a native English teacher? Do you think 'nativeness' matters? (Entry 76)

4.2.1.6 Collaboration

Teachers collaborate in various ways when they interact with each other exchanging their opinions and resources, creating a good learning environment for students, and using innovative activities. Building relationships with other teachers, supports students' learning. This category contains entries and comments in which teachers support each other using collaborative activities. Under this category, 23 entries and 386 comments were shared by teachers regarding the content analysis of the study. This category did not have any sub-categories and the entries shared in this category constructed 13% of those in all categories. This shows that collaboration activities among teachers are more common in this group compared with the other groups in previous studies.

It can be seen from the example in Entry 24, teachers prefer this group as a tool to find collaboration practices for their students. The member asks teachers if they can work together. He wants to make groups including his own students and other teachers' students so that they speak English.

> Hello everybody! I have 30 students who are volunteer to make friends from any part of the world. We want to make groups through messenger and they write to each other,,
>
> Edit: I am a teacher and I want to work with teachers who have 11-12 year old students. (I thought that this platform belong to only teachers, so I turn off commenting and please as teachers, send me message through messenger!) (Entry 24)

4.2.1.7 Reflection

Reflection is necessary for all teachers to maintain their professional development. It was stated that without regular teachers' reflections, it was not possible to understand teachers' motivations, prejudices, and opinions (Day, 2001). By giving reflections, teachers can manage uncertainties and unexpected situations in the classroom and school because reflection provides them feedback about their beliefs and attitudes and their relationships with the students and others in the school (Boud

et al., 1985). Giving reflection also provides teachers new perspectives, and a new awareness or understanding of their behaviors (Osterman, 1990). Thus, reflection has always had an important role in effective teaching (Korthagen & Wubbels, 1995).

In this category, the entries and comments were mainly about teachers' reflections on their practice, values, beliefs, and personal, social, and professional experiences. There were 2 entries in this category and they constitute 1.14% of all categories. This shows that teachers rarely prefer providing their feedback and reflection about EFL teachers' professional lives in this group.

In Entry 74 below, a member shares his feelings and opinions about a situation disturbing him by giving examples in detail.

> Most students of English, both at beginner and advanced levels, find speaking the most difficult skill to learn. But think about it that way. When two strangers meet, their purpose is to communicate a message to one another. So the fact that you have a common language between you is already an immense advantage you should celebrate it rather than fear! Most native English speakers I've met, do not (unfortunately) speak another language so they are full of admiration and patience for people who do. I have come across situations in which somebody was apologising "I'm sorry, my English isn't good" to which the other person responded, "Don't worry, it's so much better than my Polish." Vast majority of English speakers understand that you are doing your best to communicate in a language which is not your own and appreciate the effort you are making. So, there are no reasons for being embarrassed or stressed, nobody is judging you, really. Just try to do your best. As one of my favourite writers, Maya Angelou, once said "Do the best you can until you know better. Then when you know better, do better."
>
> (Entry 74)

In entry 118, the member wonders teachers' opinions about the challenges and joys of teaching.

> Hi everyone, I am working on a presentation on the "challenges and joys of teaching" , I am asking my coworkers some key concepts in the issue: 3 challenges and 3 joys but I haven't gathered enough data, would you help me by answering the two questions? I would really appreciate, thank you :) (Entry 118)

4.2.1.8 Not Applicable

This category includes entries unrelated to EFL teachers' professional development. There were 9 entries with 82 comments in this category, most of which were the entries by group admins to warn the member about some issues. Thus they

were not evaluated for this study. For example, in Entry 84, the group admin asks for the members to share their opinions, questions in a friendly manner in the group. And it is not related to the research.

> Hi everyone. Please be brave to continue sharing your questions with our group. I know there are some people here who try to bring negativity and intimidate us from having a discussion. That is perhaps their right. But please continue to ask and discuss. Let's build a positive, helpful and caring community. Thank you. (Entry 84)

4.2.2 Findings Related to Second Research Question: Which topics attract the most interaction, determined by the number of comments and words-per-entry?

The findings of the study were gathered on an analytical view including the number of comments per entry, i.e. comment-to-entry ratio (CER), and the number of words per entry, i.e. word-to-entry ratio (WER). The number of comments and words were counted and divided by the number of entries in each category and their ratios were calculated. The results on Table 6 indicate the number of comments and words for each category.

Table 6. *Number of comments and words per entry in each category.*

	comment to entry ratio (CER)	**word to entry ratio (WER)**
1.Pedagogical Knowledge	16,7	857,7
2. Content Knowledge	7,2	223
3.Pedagogical Content Knowledge	9,2	371,9
4. Resource	7,9	277,9
5. Career development	14,5	583,3
6. Collaboration	16,7	419,9
7. Reflection	22,5	773,5
8. Not Applicable	9,11	390,2
Overall total	11,1	357,9

As Table 6 indicated, the highest CER was observed in Reflection with 22,5 comments per entry which has only 2 entries. Collaboration and PK followed it with

16,7 comments per entry. On the other hand, the highest WER was observed in PK (N=857,7). The lowest CER (N=7,2) and the lowest WER (223) were observed in Content Knowledge. Table 6 also shows that the number of comments (N=9,11) and words (N=390,9) per entry is average for Not Applicable.

4.3 Qualitative Findings of Interviews

4.3.1 Findings Related to Third Research Question: What are the EFL teachers' perceptions about the use of E-mentoring groups on Facebook in English language teaching?

The perceptions of teachers on usage of groups on FB was tried to be identified through the semi-structured interview carried out with 10 English teachers. To analyze all the answers obtained through interviews, the content analysis method was used in the study. Instead of participants' real names, names were coded with numbers to enable confidentiality principle. Findings from descriptive analysis are provided below.

4.3.1.1 Information Sources of Getting ITE

With the first interview question, it was aimed to find out how teachers are aware of ITE and a member. The data obtained from participants were categorized and given in Table 7.

Table 7.

Information Sources of Getting ITE

Information Sources	Teachers
Recommendation from a friend	T1, T3, T4, T5, T8
Social media	T1, T6, T7, T8, T10

As seen in Table 7, 5 English teachers stated they heard about ITE thanks to their friends and others were aware of this group by chance while surfing on FB.

4.3.1.2 Purpose of ITE Usage

The second question was aimed to unearth for what purposes the participants use ITE. The data was categorized to themes by regarding teachers' answers for interviews. The themes were coded as Resource an content sharing, being current and mentoring. The themes were given in Table 8 below.

Table 8. *Purpose of ITE Usage*

Themes	Teachers
Resource and Content sharing	T1, T6,T7,T8,T9
Being current	T2,T3,T4,T5,T6,T10
Mentoring	T2 T8

As Table 8 shows, teachers use ITE to find new materials, books, and games. They also stated that they are benefit from the group to be current and get ideas about new innovations in education. Additionally, they indicated that they use the group for mentoring.

> I use it for activity, information sharing, question sharing, creativity, everything. (T1)

> I mostly use this group for sharing information and ideas to follow innovations. Because, in general, teachers talk to this group about innovations, events that are different from the events that happened on their own. Teachers are both aware of different strategies, different meetings, etc. In this group, activities related to professional development are shared. (T6)

As the abovementioned statements indicate, T1 and T6 underlined that they try to use the group to follow innovations, share new ideas and resources.

4.3.1.3 Frequency of ITE Usage

The third question aimed to understand how often participants use the group. The answers for this question were given in Table 9.

Table 9. *Frequency of ITE usage*

Frequency	Teachers
Once a day	T1, T7, T9
Once in two days	T3,T5
Once a week	T2
While using FB	T6, T8
Often	T4, T10

As Table 9 shows, participants actively use the group and keep informed about new posts shared on ITE.

> Since I follow this group on social media, I follow it almost every other day, I can see it without any effort since it takes place on the main page, so I am satisfied. Although sometimes things are shared that are not suitable for their purpose, I mostly look at them once in two days.(T2)

T2 explains that he/she use the group every other day to follow entries. He/She also mentions about there is no difficulty to use the group.

4.3.1.4 Frequency of Use of Resources Seen in ITE.

The fourth question was to determine how often participants use or apply they see in the group. For this question, teachers indicated they often apply the new ideas and resources shared in the group.

> I apply it often, because there is a curriculum that I have to follow right now, my friends share very good activities and materials so I use them as long as they are suitable for the curriculum. (T1)

> I apply them in general, I try to apply them in my lessons. Some activities and some applications are shared here, I try to use these applications especially if I can integrate them into my own lesson. (T7)

T1 and T7 mention that they apply the activities and materials shared in the group. They also add that they integrate these materials to their curriculum and lessons.

4.3.1.5 Teachers' opinions on Using ITE

The fifth question was to find out advantages and disadvantages of usage of ITE in terms of career development. As a result of the descriptive analysis of the data obtained from the interview, codes were defined as Career development, Peer support, Resource sharing for advantages while Waste of time and Not-related things and Bad mentoring are defined as codes for disadvantages of use of ITE.

Table 10. *Teachers' opinions on advantages of using ITE*

Themes	Teachers
Career development	T1, T6,T7,T8,T9
Peer support	T3
Resource sharing	T2,T3,T4,T5,T6,T10

As Table 10 shows, participants involved in the interview part of the study find ITE very useful in terms of getting new resources, career development and peer support.

> For me, exchanging information among teachers is very important. And, I find this group significant because this group enables teachers to share videos, songs, pictures that can be creative and useful for our English courses. (T10)

> I find it useful. I learn lots of activity-designing ideas in such pages. (T2)

T10 and T2 state that thanks to this group they reach different materials and these materials enrich their teaching environment and enable students to actively participate in the lesson.

> Teachers should improve themselves keeping up the times in terms of career development. Yes, we all graduated from different universities but our development must continue. Therefore, we need to be aware of differences in education. We need to help each

other. People may not get together at the same time and at the same place and, this kinds of groups make people get together. So, I find them very useful. (T7)

T7 indicates that this group is very helpful for career development since there are a great many teachers in the group and they all have different knowledge.

While teachers support some advantages for using ITE, they also state that using this group has a few disadvantages. They were given in Table 11.

Table 11.

Teachers' opinions on disadvantages of using ITE

Themes	Teachers
Not-related things	T3
Waste of time	T5, T7
Bad mentoring	T6, T2

Table 11 shows that teachers have opinions on disadvantage of use of this group. They support that some teachers share irrelevant things in the group, spending so much time in the group is waste of time and some teachers mislead each other about some issues. In addition teachers mention that applying resources directly without adapting to their own lessons has some bad effects on students.

I think there are lots of advantages; sometimes people don't think about the activities they will apply. On the other hand, if you are not an experienced teacher, if you try to implement every activity you see in your classroom, this can sometimes be a problem. It can cause problems according to the readiness of children. (T1)

There are some disadvantages, there may be people who share very silly things, and this can take our time. (T3)

T1 and T3 state that using this group has some disadvantages: T1 supports that teachers shouldn't apply the activity they see directly, they should adapt them firstly for their students.

4.3.1.6 Evaluation of posts and comments shared in ITE

The sixth question was to understand how participants evaluate posts and comments shared in ITE. As a result of the descriptive analysis of the data obtained from the interview, codes were defined as collaborative, motivating, and practical. They were given in Table 12.

Table 12. *Evaluation of posts and comments shared in ITE*

Themes	Teachers
Collaborative	T1, T7
Motivating	T1, T2,T3,T10, T4
Practical	T2, T5,T6,T8,T9

As seen in Table 12, teachers evaluate group posts and comments positively. They mention that these posts and comments are collaborative, motivating and practical.

> The comments generally include positive reviews. There are people who actually respond with very reasonable answers. As I read about those problems, I think I am not alone. And it feels good to me. When I see the solutions written, I think it will work if I apply this. We have teachers who really work with dedication.(T3)

> People generally try to help eachother in the group and I really like this. (T1)

4.3.1.7 Similarities and differences between FB groups and in-service training

The last question was to determine teachers' perceptions on differences and similarities between FB groups and in-service trainings. Generally, participants responds show that they find FB groups more useful and they have some reasons. The

codes were defined according to the data attained as a result of the descriptive analysis of the interview transcripts. They were given in the Table 12.

Table 13. *Similarities and differences between FB groups and in-service training*

Themes	Teachers
Flexibility in terms of time and location	T2, T6, T7
Creativity	T10, T5
Sincerity	T9, T3
Career Development	T3,T6,T4, T7, T3

Table 13 shows that teachers mention about 4 themes in terms of similarities and differences between in-service trainings and FB groups. They indicated that FB groups are flexible in terms of time and location. Additionally, they added that FB groups are more creative than in-service trainings and they stated that in-service trainings are useless and waste of time. They also emphasized that in FB groups, people share and comment comfortably and the reviews are more sincere. Lastly, they explained that both of them are useful for their career development. However, they stated that FB groups are more effective than in-service trainings.

> Certainly, this group is more effective and useful than the seminars that we attended at the beginning and end of the year. I don't think the seminars that we attended are effective for us. They don't have any contribution to us. To be honest, I benefit from these groups more than the seminars.(T1)

> FB groups are more useful than the seminars we attended at schools. Because there are thousands of people in the group. And, they share very useful things.(T8)

> This group also shares the things about professional and personal development. Unlike others, it is an online platform. While providing the convenience of following anywhere, anytime, it also allows a wide variety of sharing. (T6)

T1, T8 and T6 find FB groups very useful in terms of career development. They claim that these kinds of groups are more effective for their career development than

the seminars organized in schools. They emphasized that online platforms were more suitable in terms of flexibility.

4.4 Summary

The findings of the current study were given in this chapter. The findings were grouped under two headings, as the current study has two dimensions. First of all, the quantitative analysis of findings obtained from 6-week entries of ITE members were given in tables and figures to reveal use of ITE as an educational tool by EFL teachers. The findings showed the total number of entries (174), comments (1974) and words (62281) shared by EFL teachers during 6-week. They also showed the number of entries (Resource 87, PCK 34, Collaboration 23, Not applicable 9, Career Development 6, CK 5, Reflection 2) comments (Resource 695, PCK 314, Collaboration 386, Not applicable 82, Career Development 386, CK 36, Reflection 45) and words (Resource 24.179, PCK 6004, Collaboration 9658, Not applicable 3512, Career Development 3500, CK 1115, Reflection 1547) for each category. Each category used as codes were explained in detail and exemplified by entries of EFL teachers. Moreover, it was also given as a table which topics attracted the most/ least interaction determined by the number of comments and words per entry. The results of number of comments and words per entry were not same with the number of comments and words. The findings show that Reflection, including only 2 entries, has 45 comments and 1547 words, which makes it the most interacted category in terms of CER (22,5). It was found that the highest WER was observed in PK (N=857,7).while the least interacted category in terms of number words per entry was observed in CK (223). The qualitative findings was obtained through semi-structured interviews including 7 open-ended questions. For each question, the themes were determined through content analysis of findings. The themes were checked by another researcher for reliability of the study. As a result of findings, it was seen that teachers interviewed heard about the group with recommendation of their friends or while surfing on social media. It was found that they generally use the group and apply the activities shared in the group. It was also seen that teachers use the group to follow up innovation about teaching, to get peer support and share resources with each other. Moreover, teachers think that use of this group sometimes can be waste of time and they are sometimes exposed to unrelated posts in the group. Additionally, teachers believe that the comments under posts are very motivating, collaborative and practical.

Finally, teachers interviewed support that use of FB groups is more effective than in-service trainings in terms of their career development.

CHAPTER V

DISCUSSION

5.1 Presentation

This study tried to identify for what purposes the teachers of ITE preferred this group and explore teachers' opinions on the use of FB as an educational tool. This chapter provides a discussion of the findings of the study introduced in the previous section. The quantitative and qualitative findings obtained in this study are discussed in detail by comparing them with previous studies in this field.

5.2 Discussion of Quantitative Findings

5.2.1 Discussion for First Research Question: What are the topics EFL teachers post on ITE?

According to the findings given in the previous chapter showing the total number of entries, comments and words (see Figure 9, 10, 11), it can be said that ITE has been used by teachers for various topics. The topics were determined as PK, CK, PCK, Resource, Reflection, Collaboration, Career Development and Not applicable. In this study, the topics categorized were evaluated to their frequency. Regarding the results, it can be concluded that teachers mostly use this group for sharing new ideas, new methods, consulting some issues, giving advice to each other, or searching for new materials. As Figure 9 showed above, the posts in "Resources" were dominant of all and had the highest percentage. Totally 174 posts were analyzed and 87 of these posts belonged to this category. Moreover, the percentages of words and comments for resources were higher than the others. Therefore, it can be concluded that the teachers of this group apply this group to look for new ideas and materials that could be useful for their lessons. They prefer ITE mostly to share and get new resources such as text, book, song, game. It was seen that some participants shared the activities they applied

or would apply in their classes. Moreover, it was revealed that teachers apply the new ideas or activities according to their class level and profile. In the same way, Hur and Brush (2009) had similar results. They have stated that teachers who are members of an online community group help each other in terms of new ideas and activities. Additionally, Hur and Hara (2007) have indicated that students can learn better thanks to the activities, materials, and ideas teachers get on these groups. Similarly, Rutherford (2010) has found that teachers are looking for new ideas and materials to capture students' attention and have lessons more fun. A similar pattern of results was obtained in the study of Duncan-Howell (2010) which claimed that online communities provided various materials in terms of professional development. They have emphasized that use of FB groups provides various resources for teachers that could be applied to their lessons. A similar conclusion was reached by Çam (2012), Tseng and Kuo (2014) in their studies which have pointed out teachers attend online communities to share and find materials and activities related to their lessons. However, the results obtained from the study by Çelik (2012) are not consistent with the results of the current study. Çelik (2012) has found that resources had the least effect on the use of online communities by teachers. Similarly, Hou et al. (2010) have found that teachers shared unrelated posts in online communities and the rate of posting teaching strategies and materials was low.

PCK, including pedagogical tools and techniques that can be used by teachers to make their lessons more effective, followed Resources in terms of the number of entries, comments, and words. The participants apply this online community group to get new ideas about teaching strategies for reading, writing, speaking activities, pronunciation, assessment, and young learners. Regarding the rates of sub-categories of PCK, Use of English and Pronunciation has the highest percentage for this category. Therefore, the current findings highlight that the teachers preferred this group to enhance their teaching skills and their knowledge on usage of language. From these results, it is clear that the participants wanted to be members of this FB group to improve themselves, use CK more efficiently. A similar conclusion was reached by Schulman (1987), who claimed that having CK and PK alone is not enough to be a good teacher. It was claimed that teachers needed PCK to teach effectively as well as CK Schulman (1987).

On the other hand, the results show that CK, which includes specific professional knowledge, had lower percentage than PCK. This result highlights that the participants of this group have knowledge about grammar and vocabulary of English but they have

some difficulties how to teach them in the class. The findings are directly in line with previous findings of Atabek (2013) who pointed that teachers used FB as an educational tool and took advantage of it for educational purposes.

Career development is also another reason for teachers to use this group. They get and share information for their Career Development. In this group, there are members from around the world, so teachers may have thought they could get knowledge directly and support themselves in terms of career development Cinkara and Arslan (2017). Similarly, Köşkeroğlu Büyükimdat et al. (2011) have found that teachers regarded FB groups as a professional development tool. Therefore, participants might feel that they can develop themselves thanks to these groups and they need to attend these groups to follow advances of career development. However, contrary to the findings of the study by Cinkara and Arslan (2017), the percentage of Career Development is lower in the current study. It was seen that Specific sub-category, which deals with teachers' culture, salary, countries, and job opportunities, includes no entry. Teachers did not talk about these issues in the group during 6 weeks.

The highest number of words for the current study was followed by Collaboration. Totally, 23 posts were shared under this category and the total comment number was 386. Teachers asked for partner schools so that they could find pen-pal for their students. Because this group was a group of English teachers, and communication is very important for this subject, teachers needed to collaborate and find foreign friends for their students so that they could speak English.

Moreover, it can be seen from the results that teachers shared not related posts about teaching and learning process under Not Applicable category. This shows that they also use the group to share their personal issues, advertisements or to chat below these posts.

5.2.2 Discussion for Second Research Question: Which topics attract the most interaction, determined by the number of comments and words-per-entry?

The analysis of second and third question was carried out with the analytic view including the number of comments per entry / comment-to-entry ratio (CER), and the number of words per entry / word-to-entry ratio (WER). The results of this analytic view revealed that the highest CER was observed in Reflection while the lowest CER observed in CK. On the other hand, the highest WER was observed in PK while the

lowest WER was observed in CK. Regarding the results, it can be said that results of number of comments and words for each category are different from the results of number of comments and words per entry. Results show that reflection including only 2 entries has the most interaction while resources has the most number of entries. The results show that participants preferred to be members of this online community because they reflected how they felt during lessons or shared their opinions on some issues.

Although Resource has the most number of entries among all entries, the number of comments and words per entry for this category is rather low. The results were similar to the findings of Cinkara and Arslan (2017) in which the number of posts for the resources category had the highest percentage while the total number of comments and words for per entry was very low. It shows that EFL teachers do not interact the posts related to resources. These current findings emphasize that there was not enough interaction among the participants for this category.

Another result shows that teachers of ITE interact mostly under the posts related to their PK including the highest percentage of WER. Therefore, it can be said that teachers should have more knowledge about how to teach. When comparing the results to those of older studies, it must be pointed out the results were similar, and PK was one of the most interacted category by teachers.

The other result reveals that although PCK has one of the highest number of entries in this study, it was seen that one of the lowest CER was observed in PCK. These results reveal that the teachers of this group mostly have difficulty in how to teach use of English and pronunciation to the students. However, interaction for this category is not enough for teachers to get new ideas to apply to their classes.

In short, it can be concluded that teachers use ITE to support their academic career, find solutions to their classroom management problems, get new ideas and activities related to their lessons, and become socialized with other colleagues from all around the world. Additionally, it was found that 1935 comments were written for 174 entries. Except for one entry, all entries had comments by members of this group. The result shows that the members of ITE are very active and usually interacted with each other. Therefore, it can be concluded that ITE is an effective group that supports teachers' academic careers.

5.3 Discussion of Qualitative Findings

5.3.1 Discussion for Third Research Question: What are the EFL teachers' perceptions about the use of E-mentoring groups on Facebook in English language teaching?

The main aim of the interview in this study is to understand the opinions and beliefs of teachers on the usage of this group. For this reason, 10 teachers chosen randomly from ITE were interviewed. It was a semi-structured interview and consisted of seven open-ended questions. The first questions aimed to understand how the teachers heard about the group. The themes were determined to the answers obtained from the teachers participating in the interview as "recommendation from a friend" and "social media". It can be concluded that teachers advise each other this group because they find them useful and effective for their lessons. Moreover, it can be said that using social media enables teachers to be aware of some useful groups for their teaching skills. The second question was to determine for what purposes participants used this group. The teachers participating in the interview gave different answers to this question. Therefore, this question was examined with separate themes. These were getting resource, content sharing, being current, and mentoring. Generally teachers stated that they used the group to find new resources for their lessons. Similarly, Doğan and Gülbahar (2018) indicated that teachers preferred FB and other social media tools to find ready-made materials for their lessons. Abe and Jordon (2013) supported that effective social media should be integrated into the curriculum. It can be concluded from the current study that teachers use the group to get creative ideas and new resources related to their subjects, to be current, to share information and to mentor each other. The third and fourth question aimed to have a deeper understanding of how often they use this group and how often they apply what they see in the group. Teachers' indicated that they often use the group and, they also stated that they usually apply what they see in the group because the activities shared are very effective. Therefore, it can be said that that the teachers who participated the interviews actively use this group. Because there is no time - location limitation and they can use the group whenever they want, the frequency of use of the group is high. The fifth question was to determine the advantages and disadvantages of the usage of FB groups. The teachers pointed that usage of FB groups for their lessons had some advantages on their

teaching skills and professional development; and the answers were similar. The themes determined to teachers' answers are "peer support, getting resources, career development". Some of teachers emphasized that they improved themselves by following posts related innovations about education. They can follow seminars, trainings thanks to this group. Additionally, teachers stated that they shared their feelings when they had difficulty during their lessons and they felt better thanks to support from their colleagues. In this context, Wellman and Gulia (2002) pointed that teachers used these online community groups not only for sharing new ideas about teaching but also looking for new friendships and social support. Similarly, it was stated that teachers of the same communities developed a sense of belonging (Lloyd & Duncan-Howell, 2010). It was also pointed that one of the reasons why teachers participated in these kinds of online communities was that teachers wanted to develop feelings of friendship (Hur, 2007; Hur & Brush, 2009). Moreover, Köşkeroğlu Büyükimdat et al. (2011) revealed that teachers got social in these communities by participating them. On the other hand teachers added using FB has some disadvantages. According to their answers, these themes were determined "sharing not related things, waste of time, false mentoring. Teachers claimed that they were sometimes exposed to see unrelated posts about teaching and learning process and that was bothersome but still they continued to use the group. They also added that excessive using this group can be waste of time because this is a type of social media and they can lose themselves surfing on the group. Moreover, teachers stated that using materials they see in the group directly can cause bad results in terms of students. They believed that they should observe and adapt all resources for their students' level. The sixth question aimed to understand how the teachers interviewed evaluate the posts and comments shared in the group. With the help of content analysis of the answers obtained from the teachers who participated in the interview, the themes were determined as "collaborative, motivating, and practical. Teachers have stated that teachers try to help each other and they try to solve their problems they face during their lessons. In addition, they appreciate and motivate each other when someone shares a resource. As explained above, they find the activities and resources very practical. The last question was to determine what the teachers thought about the differences and similarities between FB groups and in-service training. The themes determined to teachers' answers are "flexibility in terms of time and location,

creativity, sincerity, and career development". The teachers interviewed in the study emphasized that those kinds of groups were more useful and effective than in-service teacher training. They added that there was no time and place limitations and they could get new resources and ideas whenever they wanted. They emphasized that they share and comment without hesitation and the reviews were more sincere. Moreover, they stated that face-to-face training was waste of time and they did not want to attend these trainings. They also explained that they preferred online mentoring groups as a mentoring tool instead of in-service trainings at the end of and at the beginning of every year.

5.4 Summary

In this chapter, the results of both qualitative and quantitative findings which were presented in the previous chapter have been discussed in relation to the research questions in the study.

The quantitative results showed that teachers use ITE to support their academic career, find solutions to their classroom management problems, get new ideas and activities related to their lessons, and become socialized with other colleagues from all around the world. It was found that teachers of ITE mostly used the group to find new resources for their lessons. Another result showed that Reflection had the most interaction by teachers. Teachers usually use the group to reflect themselves and their feelings in the group about the issues they faced. Additionally, it was found that 1935 comments were written for 174 entries. This shows that the members of ITE are very active and usually interacted with each other.

The qualitative results revealed the opinions of EFL teachers on use of ITE. The results showed that teachers found ITE very useful since they could follow new techniques, methods related to teaching, find new resources, get peer support from their colleagues. They also stated that the comments written under posts were very motivating, collaborative and practical. Moreover they emphasized that using FB groups are more useful than in-service trainings for them in terms of flexibility of time and location, creativity, sincerity and career development.

CHAPTER VI

CONCLUSION

6.1 Presentation

This chapter provides the summary of the current study and the conclusion will present the interpretation of the results obtained from the findings of the study. Then, limitations of the current study and suggestions for further studies are provided.

6.2 Summary of the Study

The purpose of this study was to find out how teachers could benefit from FB, a common social media tool by teachers compared to others, as an online professional development tool and to find out their beliefs on the usage of FB. In order to determine the purposes of teachers' use of FB and what their beliefs on the usage of FB are, the mixed research method was carried out. This study included content analysis and interviews with ten teachers. "Innovative Teachers of English" (ITE), a FB group, was chosen within the frame of criteria, and the posts and comments shared in the selected group were saved between the dates. The posts and comments were analyzed according to codes defined by Cinkara and Arslan (2017). The findings were stated and discussed under each code. In addition, an interview was conducted to take a few participants' opinions on this group. The results of the interview were also discussed under the codes defined for content analysis. At the end of the analysis, the results showed that teachers mostly use this group to exchange knowledge about activities and materials. It was also found that teachers used the group for different education strategies that could be integrated into lessons. Moreover, teachers also made use of this group in terms of career development and teacher support in this group. Furthermore, it was seen that teachers communicated with each other in the group and shared their feelings about some situations they came across in their lessons.

6.3 Conclusion

FB is a tool for participants to contact friends, family, and play games, share photos, videos, and links, follow friends' photos and videos. However, FB is also can be used for educational purposes. There are a lot of informative groups on FB. Teachers use some FB groups as tools of informal mentoring. Because all teachers do not have a chance to improve themselves due to their location and they have difficulty having face-to-face support, teachers use these groups.

The purpose of this study was to discover for what purposes teachers used a FB group and what the teachers of this current group think about the usage of this group. This study was conducted through a FB group called "ITE". Teachers share various posts about different topics of classroom management, PK, CK, and their career development. Comments and posts shared by teachers in the group were analyzed to the codes determined in the study of Cinkara and Arslan (2017).

The most obvious finding of this study is that teachers mostly prefer this group to find new ideas and materials. They use ITE to share and get new resources such as text, books, songs, games. The results of this research support the idea of Rutherford (2010) in which he has found that teachers are looking for new ideas and materials to capture students' attention and have lessons more fun.

Moreover, it was shown that teachers used ITE for pedagogical purposes. They needed the group to improve their teaching strategies for reading, writing, speaking activities, pronunciation, assessment, and young learners. These results suggest that the teachers of this group mostly have difficulty in how to teach the use of English and pronunciation to the students. It was seen that thanks to this group, they can get new ideas about teaching pronunciation or other skills in their classes. In addition, this study showed that the participants wanted to be members of this FB group to improve themselves and use CK more efficiently. Additionally, it was stated in the study that the participants of the study used ITE for their career development. The teachers from all around the world share upcoming conferences, workshops, or trainings in the group. From the result, it can be said that teachers support each other in terms of career development (Cinkara & Arslan, 2017).

The current results also highlighted the importance of collaboration in the use of this group. The results suggest that teachers preferred the group because they needed

to collaborate and find foreign friends for their students so that they could speak English. The results also show that participants preferred to be members of this online community because they reflected how they felt during lessons or shared their opinions on some issues.

Moreover, teachers interviewed stated that the use of FB for educational purposes was effective for their teaching skills. They emphasized that those kinds of groups were more useful than face-to-face teacher trainings. They also supported that use of this group provided an e-mentoring tool that they could benefit from it regardless of time and location In addition, they stated that face-to-face trainings were waste of time and they preferred online communities instead of these training.

To sum up, it can be concluded that teachers prefer this online group to support their teaching skills, academic career, find solutions to their classroom management problems, get new ideas and activities related to their lessons, and become socialized with other colleagues from all around the world. Therefore, it can be said that use of these kinds of groups have some advantages for teaching process and can be popularized among all teachers.

6.4 Implications and Suggestions for Further Studies

In this part, some recommendations in the light of findings of the current study are provided to teachers and researchers for their further studies and teacher practices.

6.4.1 Implications

Regarding the data obtained from this study, some implications have been suggested in the educational environment. The results of the current study show that teachers can enhance their professional development process by using e-mentoring groups. They even find e-mentoring groups more beneficial than face-to-face mentoring. They prefer these groups since they trust them and they can share whatever they want related to group purpose on these groups. In this way, following these kinds of groups helps teachers to update themselves and interact with other teachers. Also, it gives a chance to be aware of innovations in English language teaching.

6.4.2 Suggestions for Researchers

As a result of findings and consequence of limitations of the study, the study has some recommendations which will be useful for further studies. First, demographic features of participants can be regarded and the frequency of online communities to the demographic features can be considered in further studies. Secondly, the frequency of usage of online communities by pre-service and in-service teachers can be distinguished in further studies. Moreover, useful FB groups for the teaching and learning process can be presented and introduced to schools and teachers' participation in these kinds of groups can be encouraged. Also, the perceptions of teachers working as primary and secondary school teachers in 81 provinces of Turkey on the usage of FB as a tool of mentoring can be studied. Lastly, teachers' motivation, success, and attitudes can be analyzed regarding their usage of FB in further studies.

6.4.3 Suggestions for Teachers

First of all, teachers can provide their materials to their students by creating these online communities on FB. Secondly, the announcements related to school organizations or meetings can be shared on these online communities. Additionally, every school can have a FB page and give information about the school, which can be good for pre-service teachers and parents. Furthermore, school administrations can have FB groups and share current news on these groups. Finally, thanks to feedbacks given by teachers on curriculums, the curriculums can be developed and more effective activities can be added to them.

REFERENCES

Abe, P., & Jordan, N. A. (2013). Integrating social media into the classroom curriculum. *About Campus*, *18*(1), 16–20. https://doi.org/10.1002/abc.21107

Alemdağ, E. (2015*). Design and effects of an e-mentoring application for ICT teachers* (Master Thesis). Hacettepe University, Education Sciences Institution, Ankara.

Akbari, Ramin. (2007). Reflections on reflection: A critical appraisal of reflective practices in L2 teacher education. System. 35. Retrieved from https://doi.org/10.1016/j.system.2006.12.008

Anderson, T., Poellhuber, B., & McKerlich, R. (2010). Self-paced learners meet social software: An exploration of learners' attitudes, expectations and experience. *Online Journal of Distance Learning Administration, 13*.

Arnold, N. & Paulus, T. (2010). Using a social networking site for experiential learning: appropriating, lurking, modeling and community building. *Internet and Higher Education*, 13, 4, 188–196. Retrieved from https://doi.org/10.1016/j.iheduc.2010.04.002

Arslan, F. Y., Cinkara, E., Bağçeci, B., & Kervancıoğlu, Ş. (2016). Mentoring as a professional development activity for EFL teachers: A case of a tertiary level English preparatory program. *Mustafa Kemal University Journal of Graduate School of Social Sciences*, 13(34), 150-165. Retrieved from http://dx.doi.org/10.5539/elt.v10n3p40

Atabek, O. (2013). *An exploratory study on the use of Facebook by pre-service teachers in Turkey and the USA: A mixed method design* (Doctoral dissertation). Middle East Technical University, Graduate School of Natural and Applied Sciences, Ankara.

Ball, D., Thames, Mark., & Phelps, G. (2008). Content Knowledge for Teaching What Makes It Special?. *Journal of Teacher Education.* 59. Retrieved from https://doi.org/10.1177/0022487108324554

Bexheti, L.A., Ismaili, B.E., & Cico, B.H. (2014). *An analysis of social media usage in teaching and learning: The case of SEEU.* In 2014 International Conference on Circuits, Systems, Signal Processing, Communications and Computers (15. – 17.03.2014). Venice, p. 90-94.

Bicen, H., & Uzunboylu, H. (2013). The use of social networking sites in education: A case study of Facebook. *Journal of Universal Computer Science*, 19(5), 658- 671. Retrieved from http://dx.doi.org/10.3217/jucs-019-05-0658

Blattner G., & Fiori, M. (2009). Facebook in the language classroom: Promises and possibilities. *International Journal of Instructional Technology and Distance Learning*, 6(1). Retrieved from http://www.itdl.org/journal/jan_09/article02.

Brookfield, S. 1995. *Becoming a critically reflective teacher*. Jossey-Bass: San Francisco.

Retrieved from https://doi.org/10.37074/jalt.2019.2.2.22

Boud, D. Keogh, R., & Walker, D. (Eds.). (1985). *Reflection: Turning experience into learning* (1st ed.). Routledge. Retrieved from https://doi.org/10.4324/9781315059051

Burnard, P. (1991). A method of analysing interview transcripts in qualitative research. *Nurse Education Today* 11, 461– 466. Retrieved from https://doi.org/10.1016/0260-6917(91)90009-Y

Burnard, P. (1996). Teaching the analysis of textual data: an experiential approach. *Nurse Education Today* 16, 278– 281. Retrieved from https://doi.org/10.1016/S0260-6917(96)80115-8

Büyükimdat, M., Albayrak, D., Erdoğmuş, F. U., Yıldırım, S., Eryol, G., & Ataman, Y. E. (2011). Preservice teachers' Facebook usage and their perspectives about Facebook as a professional development tool. *Ahi Evran Üniversitesi Eğitim Fakültesi Dergisi*, 12(2), 119-134. Retrieved from http://hdl.handle.net/11693/54615

Caldwell, L., & Grobbel, C. (2013). The importance of reflective practice in nursing. *International Journal of Caring Sciences*, 6(3). Retrieved from http://www.internationaljournalofcaringsciences.org/

Catanzaro, M., & Woods, N. F. (1988). *Nursing research: Theory and practice*. *St. Louis (Mo.): Mosby*, 437-456.

Cavanagh, S. (1997). Content analysis: Concepts, methods and applications. *Nurse Researcher* 4, 5– 16. Retrieved from https://doi.org/10.7748/nr.4.3.5.s2

Cinkara, E., & Arslan, F. Y. (2017). Content analysis of a Facebook group as a form of mentoring for EFL teachers. *English Language Teaching*, 10(3), 40-53. Retrieved from https://doi.org/10.5539/elt.v10n3p40

Clutterbuck, D. (2004*) Everyone needs a mentor: Fostering talent in your organization*. 4th ed. London: Chartered Institute of Personnel and Development.

Chen, Y. C. (2014). The effect of using a Facebook group as a learning management system. *Computers in Education Journal*, 5(4), 42-53.

Cohen, D. K., & Hill, H. C. (2001). *Learning policy: When state education reform works*. New Haven, us: Yale University Press. Retrieved from https://doi.org/10.12987/yale/9780300089479.001

Creswell, J. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. (3rd ed). New York: Sage.

Çam, E. (2012). *Educational and general use of Facebook and Facebook addiction of teacher candidates (SAU College of Education sample)*. (Master Thesis), Sakarya University, Education Sciences Institution, Sakarya.

Çelik, İ. (2012). *An investigation of candidate teachers' social skill levels according to their use of social network sites*. (Master Thesis), Necmettin Erbakan University, Education Sciences Institution, Konya.

Darling-Hammond, L. (2000). Teacher quality and student achievement. *Education policy analysis archives, 8, 1*. Retrieved from https://doi.org/10.14507/epaa.v8n1.2000

Day, C. (2001). Professional development and reflective practice: Purposes, processes and partnerships. *Pedagogy, Culture & Society*, *7*(2), 221-233. Retrieved from https://doi.org/10.1080/14681369900200057

Diaz-Maggioli, G. (2004). *Teacher centered professional development*. Alexandria, VA: Association for Supervision and Curriculum Development.

Doğan, D., & Gülbahar, Y. (2018). Using Facebook as social learning environment. *Informatics In Education*, 17(2), 207-228. Retrieved from https://doi.org/10.15388/infedu.2018.11

Duncan-Howell, J. (2010). Teachers making connections: Online communities as a source of professional learning. *British journal of educational technology*, 41(2), 324-340. Retrieved from https://doi.org/10.1111/j.1467-8535.2009.00953.x

Ellison, N. B., Steinfield, C., & Lampe, C. (2011*). Connection strategies: Social capital implications of Facebook-enabled communication practices*. New Media & Society, 13, 6, 873–892.

Eraut, M. (1994) *Developing Professional Knowledge and Competence*. London: Falmer Press.

Facebook (n.d.). *Company info.* Retrieved July 5, 2019, from https://about.fb.com/company-info/

Fernández-Balboa, J.-M., & Stiehl, J. (1995). The generic nature of pedagogical content knowledge among college professors. *Teaching and Teacher Education*, 11, 293–306. Retrieved from https://doi.org/10.1016/0742-051X(94)00030-A

Flick, U. (2009). *An introduction to qualitative research* (4th ed.). London: SAGE Publications Ltd.

Fraenkel, J. R., & Wallen, N. E. (2010). *How to design and evaluate research in education*. Boston, USA: McGraw-Hill Higher Education.

Gibbs, G. (1988). *Learning by doing: A guide to teaching and learning methods*. London: Further Education Unit.

Greenhow, C., & Gleason, B. (2014). Social scholarship: Reconsidering scholarly practices in the age of social media. *British Journal of Educational Technology*, 45 (3), 392-402.

Şumuer, E., Eşfer, S., & Yıldırım, S. (2014). Teachers' Facebook use: Their use habits, intensity, self-disclosure, privacy settings, and activities on Facebook. *Educational Studies*, 40(5), 537-553.

Guskey, T. R. (2002). Professional development and teacher change. *Teachers and Teaching*, 8(3), 381-391. Retrieved from https://doi.org/10.1080/135406002100000512

Hebert, L., Clift, R., & Wennerdahl, R. (2008). If we build it, will anyone use it? From Web-based resources toward a statewide community of support. In K. McFerrin, et al. (Eds.), *Proceedings of Society for Information Technology and Teacher Education International Conference 2008* (pp. 2973–2978). Chesapeake, VA: AACE.

Hur, J. W. (2007). *Understanding Teacher Participation in Online Communities: Why Do Teachers Want to Participate in Online Communities of Teachers?* (Doctoral dissertation). Indiana University, Bloomington.

Hur, J., & Hara, N. (2007). Factors cultivating sustainable online communities for K–12 teacher professional development. *Journal of Educational Computing Research*, 36(3), 245–268

Hur, J. W., & Brush, T. A. (2009). Teacher participation in online communities: Why do teachers want to participate in self-generated online communities of K–12 teachers? *Journal of Research on Technology in Education*, 41(3), 279-303.

Hsieh, H. F., & Shannon, S. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research* 15, 1277– 1288.

Jacobs, M., Vakalisa, N. C. G. & Gawe, N., (2011). *Teaching-Learning Dynamics*. Cape Town: Pearson.

Jalal, A., Zaidieh, Y. (2012). The use of social networking in Education: Challenges and Opportunities. *World of Computer Science and Information Technology Journal (WCSIT*), 2(1), 18–21.

Jaffe, R., Moir, E., Swanson, E., & Wheeler, G. (2006). Online mentoring and professional development for new science teachers. In C. Dede (Ed.*). Online Teacher Professional Development: Emerging Models and Methods* (pp. 89–116). Cambridge: Harvard Education Publishing Group

Jeruchim, J., & Shapiro, P. (1992). *Women, mentors, and success*. New York: Fawcett Columbine.

Kelly, P. & McDiarmid, G.W. (2002). Decentralization of professional development: Teachers' decisions and dilemmas, *Journal of In-service Education*, 28, pp. 409-425. Retrieved from https://doi.org/10.1080/13674580200200189

Kolb, D.A. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, N.J.: Prentice-Hall. Retrieved from https://doi.org/10.1002/job.4030080408

Korthagen, F.A.J., & Wubbels, T. (1995). Characteristics of reflective practitioners: Towards an operationalization of the concept of reflection. *Teachers and Teaching*, pp. 51- 72.

Lee S. (1987). Knowledge and Teaching: Foundations of the New Reform. *Harvard Educational Review*: April 1987, Vol. 57, No. 1, pp. 1-23. https://doi.org/10.17763/haer.57.1.j463w79r56455411

Lin, N. (2002). Social capital: A theory of social structure and action. New York, NY: Cambridge University Press.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage.

Lauri, S., & Kyngas, H. (2005). Developing nursing theories. *Vantaa, Finland: Werner Söderström, Dark Oy*.

Madge, C., Meek, J., Wellens, J., & Hooley, T. (2009). Facebook, social integration and informal learning at university: 'It is more for socializing and talking to friends about work than for actually doing work'. *Learning, Media and Technology*, 34(2), 141-155. Retrieved from https://doi.org/10.1080/17439880902923606

Mann S.J. (2005). The language teacher's development. *Language Teaching* 38, 103–118. Retrieved from https://doi.org/10.1017/S0261444805002867

Marshall, C., & Rossman G.B. (1995). *Designing Qualitative Research*. Sage Publications, London.

Mayne, H . (2019). Pedagogical content knowledge and social justice pedagogical knowledge: Re-envisioning a model for teacher practice. *Research in Educational Administration and Leadership*, Special Issue: Educational Leadership for Social Justice: Policy, Practice, Community, 701-718. Retrieved from https://doi.org/10.30828/real/2019.3.9

Mazer, J. P., Murphy, R. E. & Simonds, C. J. (2007). I'll see you on "Facebook": The effects of computermediated teacher self-disclosure on student motivation, affective learning, and classroom climate. *Communication Education*, 56, 1, 1–17. Retrieved from https://doi.org/10.1080/03634520601009710

Mazman, S.G., Usluel, Y.K. (2010). Modeling educational usage of Facebook. *Computers & Education*, 55(2), 444–453. Retrieved from https://doi.org/10.1016/j.compedu.2010.02.008

Meyrowitz, J. (1997). Shifting worlds of strangers: Medium theory and changes in "them" versus "us". *Sociological Inquiry*, 67(1), 59-71. Retrieved from https://doi.org/10.1111/j.1475-682X.1997.tb00429.x

Mihram, D. (2004). *E-mentoring.* USC: Center for Excellence in Teaching.

Miles M. & Huberman A. (1994). *Qualitative data analysis: An expanded source book.* (2nd ed). Thousand Oaks, CA: Sage.

Moon, J.A. (1999). *Reflection in learning and professional development*: *Theory and practice* (1st ed.). Routledge. Retrieved from https://doi.org/10.4324/9780203822296

Osterman, K.F. (1990). Reflective practice. *Education and Urban Society* 22. 2: 133 -153. Retrieved from https://doi.org/10.1177/0013124590022002002

Padwad, A., & Dixit, K. (2011). *Continuing professional development: An annotated bibliography*. New Delhi: British Council, India. Retrieved from https://www.britishcouncil.in/sites/default/files/cpdbiblio.pdf

Phelps, G., & Schilling, S. (2004). Developing measures of content knowledge for teaching reading. *The Elementary School Journal*, 105(1), 31-48. https://doi.org/10.1086/428764

Polit D.F. & Beck C.T. (2004). *Nursing Research: Principles and Methods*. Lippincott Williams & Wilkins, Philadelphia, PA.

Prensky, M. (2005). Listen to the natives. *Educational Leadership*, 63(4), 8–13.

Rhodes, C., & Beneicke, S. (2002). Coaching, Mentoring and Peer-Networking: Challenges for the management of teacher professional development in schools. *Journal of In-Service Education*, 28(2), 297-309. Retrieved from https://doi.org/10.1080/13674580200200208

Richards, J. C. (1991). *Content knowledge and instructional practice in second language teacher education*. Originally published in Georgetown University Round Table on Languages and Linguistics Georgetown University Press, 76-99. Retrieved from https://doi.org/10.5040/9781350084650

Rolfe, G., Freshwater, D., & Jasper, M. (2001). *Critical Reflection for Nursing and the Helping Professions: A user's guide*. London: Palgrave Macmillan. Retrieved from https://doi.org/10.1046/j.1365-2648.2002.24403.x

Ryan, S., Hornbeck, A., & Frede, E. (2004). *Mentoring for quality improvement: A case study of a mentor teacher in the reform process*. Early Childhood Research & Practice, 6(1). Retrieved from http://www.ecrp.uiuc.edu/v6n1/ ryan.html

Saluja, G., Early, D. M., & Clifford, R. (2002*). Demographic characteristics of early childhood teachers and structural elements of early care and education in the United States*. Early Childhood Research & Practice, 4(1). (ERIC Document Reproduction Service. No. 464 765). Retrieved from http://www.ecrp.uiuc.edu/v4n1/saluja.html

Sasser, A.H. (2018). *Novice Teachers' Perception of Mentoring and Teacher Retention*. Georgia Southern University, Statesboro, Ga. Retrieved from https://digitalcommons.georgiasouthern.edu/etd

Schlager, M. S., & Schank, P. K. (1997). *TAPPED IN: A new on-line teacher community concept for the next generation of Internet technology*. Paper presented at the second international conference on computer support for collaborative learning, Toronto. Retrieved from https://tappedin.org/publications/1997/NextGenCSCL.pdf

Schön, D.A (1983). *The Reflective Practitioner: How professional think in action*. New York: Basic Books. Retrieved from https://doi.org/10.4324/9781315237473

Selvi, A. F. (2021). Blurring boundaries: Facebook groups as digital teachers' lounges for ELT professionals. *Anadolu Üniversitesi Sosyal Bilimler Dergisi*, 21 (1), 251-272. Retrieved from https://doi.org/10.18037/ausbd.902612

Shea, G. F. (1994). *Mentoring: Helping employees reach their full potential*. New York: American Management Association

Shorten, A., Smith, j. (2017). Mixed methods research: Expanding the evidence base. *Evidence-based nursing*, 20 (3), 74-75.

Single, P. B., & Muller, C. B. (1999). *Electronic mentoring: Issues to advance research and practice*. Paper presented at the Annual Meeting of the International Mentoring Association, Atlanta, GA. Retrieved from https://www.learntechlib.org/p/88219/.

Vassilakaki, E., & Garoufallou, E. (2015). Library Facebook practices for creating and promoting a professional profile. *Program*, 49(3), 343-359. Retrieved from https://doi.org/10.1108/PROG-10-2014-0073

Voss, T., Kunter, M., & Baumert, J., (2011). Assessing teacher candidates' general pedagogical/psychological knowledge: Test construction and validation. *Journal of Educational Psychology*, 104(3). 952–969. Retrieved from https://doi.org/10.1037/a0025125.

Yildirim, A., & Simsek, H. (2011). *Qualitative research methods in social sciences*. 221-250. (8th ed.).

Yin, R. K. (2003). *Case study research: Design and methods*. Thousand Oaks, Calif: Sage Publications. Retrieved from http://www.worldcat.org/oclc/50866947

Appendix A

	entry	%in category	%in total	comments	%in category	%in total	words	%in category	%in total
1. Pedagogical Knowledge									
1.1 Classroom management	2	28,57	1,149425287	66	56,41025641	3,410852713	2798	46,6022652	4,49254187
1.2 Other issues	5	71,43	2,873563218	51	43,58974359	2,635658915	3206	53,3977348	5,14763732
Category total	7		4,022988506	117		6,046511628	6004		9,64017919
2. Content Knowledge									
2.1 Vocabulary	2	40	1,149425287	4	11,11111111	0,206718346	288	25,8295964	0,46242032
2.2 Grammar (use of English)	3	60	1,724137931	32	88,88888889	1,65374677	827	74,1704036	1,3278528
Category total	5		2,873563218	36		1,860465116	1115		1,79027312
3. Pedagogical Content Knowledge									
3.1 Reading	3	8,824	1,724137931	52	16,56050955	2,687338501	1942	15,3554203	3,11812591
3.2 Writing	2	5,882	1,149425287	42	13,37579618	2,170542636	1403	11,09354	2,25269344
3.3 Speaking	1	2,941	0,574712644	17	5,414012739	0,878552972	712	5,62979363	1,14320579
3.4 Assessment	2	5,882	1,149425287	19	6,050955414	0,981912145	512	4,04839092	0,82208057
3.5 Use Of English	7	20,59	4,022988506	31	9,872611465	1,602067183	2436	19,2614849	3,91130521
3.6 Pronunciation	7	20,59	4,022988506	43	13,69426752	2,222222222	1276	10,0893493	2,04877892
3.7 Young Learners	3	8,824	1,724137931	18	5,732484076	0,930232558	773	6,11212145	1,24114899
3.8 General –Type Not Specified	9	26,47	5,172413793	92	29,29936306	4,754521964	3593	28,4098996	5,76901463
Category total	34		19,54022989	314		16,22739018	12647		20,3063535
4. Resource	6	6,897	3,448275862	60	8,633093525	3,100775194	1635	6,76206626	2,6251987
4.1 Textbook	1	1,149	0,574712644	14	2,014388489	0,723514212	350	1,44753712	0,56196914
4.2 Resource book	4	4,598	2,298850575	25	3,597122302	1,291989664	1070	4,42532776	1,71801994
4.3 Online material	15	17,24	8,620689655	129	18,56115108	6,666666667	3711	15,3480293	5,95847851
4.4 Tests	1	1,149	0,574712644	6	0,863309353	0,310077519	247	1,02154762	0,39658965
4.5 Visuals and charts	21	24,14	12,06896552	226	32,51798561	11,67958656	6312	26,105298	10,134712
4.6 Play to act	1	1,149	0,574712644	27	3,884892086	1,395348837	845	3,49476819	1,35675407
4.7 Games	13	14,94	7,471264368	2	0,287769784	0,103359173	3372	13,9459862	5,41417126
4.8 Songs and videos	25	28,74	14,36781609	206	29,64028777	10,64599483	6637	27,4494396	10,6565405
Category total	87		50	695		35,91731266	24179		38,8224338
5. Career development									
5.1 Overall professional-teaching	1	16,67	0,574712644	13	14,94252874	0,671834625	380	10,8571429	0,61013792
5.2 Specific (about the culture, people, salary, opportunities, etc.)	0	0	0	0	0	0	0	0	0
5.3 Degree and Certificate Programs (MA, TEFL, CELTA, DELTA, Conference, Online)	1	16,67	0,574712644	2	2,298850575	0,103359173	66	1,88571429	0,10597132
5.4 Academic Research	4	66,67	2,298850575	72	82,75862069	3,720930233	3054	87,2571429	4,90358215
Category total	6		3,448275862	87		4,496124031	3500		5,6196914
6. Collaboration	23		13,2183908	386		19,94832041	9658		15,507137
7. Reflection	2		1,149425287	45		2,325581395	1547		2,4839036
8. Not Applicable	9		5,172413793	82		4,237726098	3512		5,63895891
Overall total	174			1935			62281		

Appendix B

Interview

Gender: Female / Male

Age:

Experience:

School: Primary / Secondary / High

Membership duration in ITE:

Questions:

1) How did you hear about ITE?
2) For what purposes do you use ITE?
3) How often do you use ITE?
4) How do you apply the activities you see in ITE?
5) What do you think about the effects of using FB groups on teachers' PD?
6) How do you find the posts and comments shared in the group?
7) What are the differences between ITE and other PD activities?

Appendix C

1. Pedagogical Knowledge
1.1 Classroom management
1.2 Other issues
2. Content Knowledge
2.1 Vocabulary
2.2 Grammar (use of English)
3. Pedagogical Content Knowledge
3.1 Reading
3.2 Writing
3.3 Speaking
3.4 Assessment
3.5 Use Of English
3.6 Pronunciation
3.7 Young Learners
3.8 General –Type Not Specified
4. Resource
4.1 Textbook
4.2 Resource book
4.3 Online material
4.4 Tests
4.5 Visuals and charts
4.6 Play to act
4.7 Games
4.8 Songs and videos
5. Career development
5.1 Overall professional-teaching
5.3 Degree and Certificate Programs (MA, TEFL, CELTA, DELTA, Conference, Online)
5.2 Specific (about the culture, people, salary, opportunities, etc.)
5.3 Degree and Certificate Programs (MA, TEFL, CELTA, DELTA, Conference, Online)
5.4 Academic Research
6. Collaboration
7. Reflection
8. Not Applicable

VITAE

Ceylan ERDOĞAN graduated from, Foreign Language Education Department, English Language Teaching Program at Marmara University in 2016. She worked as an English teacher in Süleyman Demirel University in 2016. She has been working as a teacher of English in Ministry of National Education since 2017. She started doing her master's degree in the same department in 2017-2018 Fall semester.

ÖZGEÇMİŞ

Ceylan ERDOĞAN 2016 yılında Marmara Üniversitesi Yabancı Dil Eğitimi Bölümü, İngilizce Öğretmenliği Bölümü'nden mezun olmuştur. 2016 yılında Süleyman Demirel Üniversitesinde İngilizce öğretmeni olarak çalışmıştır. 2017 yılından beri Milli Eğitim Bakanlığı'nda İngilizce öğretmeni olarak görev yapmaktadır. 2017-2018 öğretim yılı güz döneminde aynı anabilim dalında yüksek lisans eğitimine başlamıştır.