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KNOWLEDGE BASE OF NOVICE AND EXPERIENCED EFL INSTRUCTORS AT TURKISH UNIVERSITIES

**DOCTORAL DISSERTATION** 

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Knowledge Base of Novice and Experienced EFL Instructors at Turkish Universities

Burcu BAŞAK COŞKUN (Doctoral Dissertation)

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> Çanakkale January, 2020

## Undertaking

I hereby declare that the Doctoral Thesis "Knowledge Base of Novice and Experienced EFL Instructors at Turkish Universities" that was written by me, has been prepared in accordance with academic and ethical rules, all the sources and materials I have utilized have been carefully cited in the references.

31.../.01./2020

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## Çanakkale Onsekiz Mart Üniversitesi

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# Knowledge Base of Novice and Experienced EFL Instructors at Turkish Universities Burcu BAŞAK COŞKUN

### Abstract

Despite many studies investigating the knowledge base of language teachers all around the world, not much has been studied related to EFL instructors in Turkey. The current research is established so as to explore the KB of novice and experienced EFL instructors at Turkish Universities, the sources that contribute to the their KB and teachers' perceptions related to how their knowledge bases influence their classroom practices. Mixed method study is conducted and data were collected both qualitatively and quantitatively. For the quantitative part, 117 instructors from different universities in Turkey were chosen randomly and they were given a likert scale questionnaire. Instructors determined the perceived usefulness of different categories of knowledge base while teaching. The scale included options from 1 to 7. While 1 means very necessary, 7 means definitely unnecessary. In addition, there was an option of 0, which meant that teachers had no opinion of that term. Principal component analysis was performed separately for "Knowledge of English Language system" as well as "Knowledge of Language Teaching and Learning" by using statistical software SPSS version 22.

In "Knowledge of Language", mean scores indicated that the instructors thought that "knowledge of grammar and word meaning and use" items were the most useful. In "Knowledge of Language Teaching and Learning", mean scores for "teaching reading, writing, speaking and listening" were the highest suggesting that instructors consider those were most useful.

Semi structured interviews were made with 12 instructors teaching English at various universities located in Turkey. 6 of the participants were experienced while the rest were novice instructors. All work at state universities in Turkey. It was revealed that both novice and experienced instructors gave the most priority to content and pedagogical content knowledge. Their KB involves "knowledge of self, CK, PCK, GPK, and knowledge of students". The sources of experienced instructors' knowledge base are mostly previous teaching experiences whereas the sources of novice teachers are mostly courses they took at university and previous learning experiences. Thus, they differed in terms of the construction of their KB. All instructors whether novice and experienced put an emphasis on how closely their KB and classroom practices are related. This showed the link between their KB categories and classroom practices.

Keywords: knowledge base, novice, experienced, EFL instructor

# Türkiye'deki Üniversitelerdeki Deneyimli ve Deneyimsiz Yabancı Dil Öğretim

#### Görevlilerinin Bilgi Tabanı

#### Burcu BAŞAK COŞKUN

## Özet

Tüm dünyada yabancı dil öğretmenlerinin bilgi tabanını oluşturan birçok çalışmaya rağmen, Türkiye'deki yabancı dil öğretim görevlileri ile ilgili yeterli çalışma bulunmamaktadır. Bu çalışmanın amacı, Türkiye'deki deneyimli ve deneyimli yabancı dil öğretim görevlilerinin bilgi tabanını neyin oluşturduğunu, bu tabanın nasıl oluştuğunu ve öğretmenlerin bilgi tabanını, sınıf içi uygulamalarını nasıl etkilediği ile ilgili algılarını ortaya koymaktır. Çalışmada karma yöntem kullanılmış ve veriler hem nitel hem de nicel olarak toplanmıştır. Nicel bölümde Türkiye'deki farklı üniversitelerden 117 öğretim görevlisi rastgele seçilmiş ve onlara likert ölçekli anket uygulanmıştır. Öğretmenlerden, 1'den 7'ye kadar olan bir ölçekte (1=çok yararlı, 7=hiç yararlı değil) sınıf içinde bilgi tabanının faklı kategorilerinin yararını belirlemeleri istenmiştir. Bunun dışında 0(terimi bilmiyorum) seçeneği de bulunmaktadır."İngiliz Dili Sistemi Bilgisi" ve "Dil Öğretimi ve Öğrenimi

'İngiliz Dili Sistemi Bilgisi'nde ortalama skorlar, öğretim görevlilerinin 'gramer' ve 'kelime anlamı ve kullanımı' maddelerini en yaralılar olarak belirlediğini göstermiştir. 'Dil Öğretimi ve Öğrenimi Bilgisi'nde ise en yüksek ortalama skorlar, okuma, yazma dinleme ve konuşma öğretimi maddelerine verilmiştir. Bu da katılımcıların en çok bu maddeleri yararlı bulduklarını göstermektedir

Nitel bölümde veriler Türkiye'deki farklı üniversitelerde görev yapan 112 öğretim görevlisi ile yarı yapılandırılmış görüşme ile toplanmıştır. Katılımcıların altısı deneyimli iken diğer altısı deneyimsiz öğretim elemanlarıdır. Tüm katılımcılar Türkiye 'de devlet üniversitelerinde görev yapmaktadır. Sonuçlar, hem deneyimli hem deneyimsiz öğretim görevlilerinin bilgi kategorilerinden en çok alan bilgisi ve pedagojik alan bilgisine önem verdiklerini göstermiştir.Bilgi tabanları temel olarak "alan bilgisi", "pedagojik alan bilgisi", "genel pedagojik bilgi", "kişi bilgisi" ve "ortam bilgisi"nden oluşmaktadır. Deneyimli öğretim görevlilerinin bilgi tabanı kaynağı ağırlıklı olarak geçmiş öğretme deneyimleri iken deneyimsiz öğretim görevlilerinin bilgi kaynağı üniversitede almış oldukları dersler ve geçmiş öğrenme deneyimleridir. Bu nedenle, deneyimli ve deneyimsiz öğretim elemanlarının bilgi temeli inşasında farklılıklaştıkları söylenebilir. Deneyimli ve deneyimsiz öğretim görevlileri bilgi temelleri ve sınıf içi uygulamaları arasındaki yakın ilişkiyi vurgulamışlardır. Bu da bilgi temeli ve uygulamaları bağlantısını ortaya koymuştur.

Anahtar kelimeler: bilgi temeli, deneyimli, deneyimsiz, yabancı dil öğretim görevlileri

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# List of Abbreviations

: Content Based Instruction
: Certificate in Teaching English to Speakers of Other Languages
: Communicative Language Teaching
: Diploma in Teaching English to Speakers of Other Languages
: English for Academic Purposes
: English as a Foreign Language
: English Language and Literature
: English Language Teaching
: English Language Teacher Education
: English as a Second Language
: English for Specific Purposes
: Foreign Language
: General Pedagogical Knowledge
: Higher Education Council
: Initial Language Teacher Education
: Knowledge Base
: Knowledge of Language
: Knowledge of Teaching
: Language Teacher Education
: Second /Foreign Language
: Master of Arts
: Mixed Method
: Master of Science
: Principal Component Analysis

РСК	: Professional Development Activities
PhD	: Doctor of philosophy
РК	: Pedagogical Knowledge
QUAL	: qualitative
QUAN	: quantitative
SLTE	: Second Language Teacher Education
SPSS	: Statistical Package for the Social Sciences
TE	: Teacher Education
TESOL	: Teaching English to Speakers of Other Languages
TK	: Teacher Knowledge

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#### **Chapter I: Introduction to Research**

#### Introduction

The chapter first tells the importance of English as well as language teachers. Then, theoretical framework is given, the purpose is explained, main research questions are given, limitations are written, and problem statement is given. Afterwards, the meaning of the study is highlighted for L2 teachers and for TE programs. Finally, basic assumptions of the study and context are mentioned.

#### **Background of the Study**

As English is accepted as a dominant language by a great many people, it has a great significance for those wanting to learn or teach it. The language is accepted to be the linguafranca (Crystal, 1997). Because of globalization, people all over the world need to communicate using the same language. Mostly, as Crystal (2003) mentions, the English language is chosen in order to interact with people whose native languages are different from one another. Turkey, which is one of the countries in the expanding circle, has chosen this language as the most frequently used foreign language. (Sallı-Çopur, 2008). Language teachers are greatly needed for the need to communicate with others and training qualified teachers who can effectively teach the foreign language is necessary.

As in a number of countries, EFL teaching is very important in Turkey particularly in the context of universities as more and more students now have a need to learn or acquire the language somehow so as to pursue their undergraduate studies in addition to other motivations for learning the language. Language teachers have a great role in teaching a FL to their university students. Many students would like to learn English at university level. They may be learning English for various purposes and needing GE, ESP or EAP or so on. This demand requires qualified instructors, who are competent in a number of domains. As student learning is highly affected by teacher quality, we need to examine what English language instructors bring with them into their classes considering the fact that teacher knowledge greatly affects students' learning another language. Therefore, teachers have a central role in language learning. As we need qualified language teachers for affecting foreign language teaching quality in our country positively, their knowledge base gives us a lot of information about how qualified they are. Then, ELT instructors need to be under investigation.

It is possible to say that teachers construct their knowledge all the time. In order words, the teacher reshapes one's present knowledge continuously. This is related to teacher development. Teachers learn from their classroom practices by reflecting on them. This also helps to reconstruct their knowledge (Mann, 2005)

This study gives a detailed understanding of how both novice and experienced instructors in Turkey view their knowledge as well as how they perceive that is implemented in their classroom practices. Thus, by the help of such a study, they will become more aware of themselves in terms of their knowledge. Although it is not easy to answer knowledge to be considered a good language teacher, examining their KB will give us hints for answering the questions.

#### **Theoretical framework**

Various perspectives were taken into consideration to construct a theoretical framework of the study. However, Shulman's framework was mainly taken as a guide. Thus, the main theoretical framework for our study is primarily determined by Shulman's categories of knowledge.

In this study, rather than dealing with one specific area of knowledge, a wider framework is adopted and some broad points are examined. These are the domains which make up the KB of language teachers at universities, the sources of their knowledge and their views of the effects of their knowledge on their classroom practices. As Abdelhafez (2010) argues, considering the interdisciplinary nature of teaching, adopting a broad scope of research makes it easier to deal with various factors that are all closely related to teaching. Such a holistic approach of dealing with teacher knowledge is consistent with previous frameworks such as Shulman (1987), Turner-Bisset (1999) and Hegarty (2000). Therefore, so as to see the interrelatedness of teacher knowledge categories, a holistic approach was chosen.

#### **Purpose of the Study**

The primary mission is to inquire the KB of novice and experienced EFL instructors who work at various state universities in Turkey, the differences between their knowledge bases, sources contributing to their knowledge bases as well as the teachers' views of the influence of their KB on what they do in class.

One cannot make generalizations about all language instructors' knowledge bases. Similarly, no one researcher can evaluate language teachers' knowledge base. As Abdelhafez (2010) mentions, one cannot easily list different intervening variables for teaching as it is very complicated. In addition, no one can exactly state the standards of necessary knowledge. Thus, the research scrutinizes the knowledge of language instructors at universities and how their knowledge affects their classroom practices considering the instructors' own views.

Instead of dealing with specific aspects of teachers' knowledge, the study is established to cover broad areas such as the different domains that form the base of the KB of instructors, the sources that shape their knowledge and their classroom practices affected by what they know. Such a broad research scope gives one a chance to study the issue in a holistic framework.

Knowledge about what language teacher knowledge entails has mostly been gathered by reviews of literature and other studies in other settings. So as to fill the gap, one has to study this knowledge in a different context, that is, university setting. Considering the context of language teachers, it may be said that the knowledge and skills expected from them can be different from what is expected from other teachers working in different contexts rather than universities. In short, the study helps us understand teachers themselves who greatly contribute to students' learning L2 in Turkey.

#### **Research Questions**

Main research questions investigated are:

- 1. What constitutes the KB of novice and experienced EFL instructors? Is there a difference between their knowledge bases?
- 2. What sources do they think contribute to their KB?
- 3. What are instructors' perceptions of the influence of their KB on their classroom practices?

#### Limitations of the Study

- Not all EFL instructors could be included. The study included a small sample. For instance, those working at private universities were not among the participants. Thus, it is not possible to make generalizations for all EFL instructors in our country.
- No observations were made in the study. In other words, what they did in class were not observed or recorded. The influence of the instructors' KB on their teaching practice was only studied considering the instructors' perceptions. Classroom observations could have yielded different results.
- There may be some limitations related to the data collection of interviewing. Teachers may not tell exactly what constitutes their knowledge base. They may not reflect on themselves accurately. They may view themselves different from others such as their colleagues or their students. Thus, the findings should be interpreted as how they perceive their own reality.

Therefore, it is obvious that we cannot obtain findings which can be generalized to all foreign language instructors in our country because of the number of the participants and data gathering instruments. Although it is a mixed method study, mainly qualitative part is emphasized as that is the part that gives us the answers to our research questions. The researcher does not aim to judge language teachers' knowledge but just to put forth the situation.

#### **Problem Statement**

Many studies about TK in general education exist. (Ben -Peretz, 2011; Calderhead, 1988; Carter, 1990; Fenstermacher, 1994; Grossman, 1990; Hiebert, Gallimore, & Stigler, 2002; Shulman, 1986, 1987; Verloop, Driel, & Meijer, 2001) Likewise, many researchers in ELT and applied linguistics have examined their knowledge base. (e.g. Abdelhafez, 2014; Alvarez, 2009; Cesur, 2012; Freeman& Johnson, 1998; Gatbonton, 2000; Jansem, 2014; Johnston & Goettsch, 2000; Kayi-Aydar, 2011; Luo, 2004; Yazdanpanah, 2011, 2015; Zhang& Zhan, 2014) Although some research has been done about knowledge base of ESL/EFL teachers, few have examined what constitutes the knowledge base of EFL instructors at universities especially in Turkey. In addition, studies include pre-service or novice teachers. They do not examine both novice and experienced instructors in the same study. Erdoğan (2005) also points out that experienced teachers are mostly not included in research about teachers' cognition in ELT. Apart from that, as Erdoğan (2005) mentions, most studies are usually conducted in ESL contexts rather than in EFL contexts as most English teachers work in such places. However, in Turkey English is a FL. In addition, not many investigated the construction of teachers' knowledge especially in Turkish university context. As most studies have dealt with language teachers' PCK in ELT, there needs to be more research on constituents of knowledge base for EFL instructors and their knowledge should be investigated in a wider perspective. Finally, not much research has been done on English instructors in Turkish context.

As Freeman (2002) mentions, studies related to language teacher cognition have become popular since 1990s. A great many studies exist on the cognition of language teachers. However, Borg (2003) asserts that although many studies deal with teacher cognition in ELT, one can still find many other points to examine related to teacher cognition in ELT. Knowledge base of language teachers is one of those issues that needs to be given more emphasis. Therefore, one may conclude that it is necessary to conduct more studies to thoroughly understand cognition of teachers especially knowledge base (Eksi& Capa-Aydın, 2012)

The current research is conducted to empower literature about EFL instructors' knowledge base by examining what constitutes novice and experienced teachers' knowledge base, what factors affect their knowledge base construction and how their knowledge affects what they do in class.

#### Significance of the Study

When related literature is examined, it may be concluded that the number of studies on FL instructors' knowledge is not sufficient. Therefore, it is not easy to put forth what constitutes the knowledge base of EFL instructors and what components each category includes. Researchers are mostly engaged in studies examining pre-service and novice teachers' expected knowledge base making use of pre-service teacher education programs or other sources. Yet we need to put forth what knowledge base novice and experienced EFL instructors have and the components of their knowledge categories. We still lack research related to knowledge base studies in applied linguistics.

As Shulman (1987) implies, by examining KB of teaching as well as its sources considering its complex nature, we will have an opinion of what to expect from competent

teachers. Thus, we will know what is included in the knowledge base of teachers, how they have gained their knowledge and how they perform the act of teaching.

Most students in Turkey are unable to learn English especially in primary or secondary education. When they enter university, some of them students need to follow one year intensive foreign language teaching programs. Apart from that, they need to take compulsory English course whatever their departments are. Here EFL instructors have a big role in helping them master the foreign language. Therefore practicing EFL teachers at higher education institutions are to be investigated. Studying their knowledge will give us a general understanding of their cognitions. Some suggestions can also be made for future teacher development activities as they always have a need to improve themselves professionally.

One cannot deny that teachers have a great responsibility in the teaching process. For Elbaz (1983) teachers are the ones who give a shape to curricula and he indicates that "the single factor which seems to have the greatest power to carry forward our understanding of the teachers' role is the phenomenon of teachers' knowledge." (p.45). Therefore, so as to comprehend their influence further, it is a must to study their knowledge.

Teacher education programs can make use of the conclusions made at the end of the research. (Johnston & Goettsch, 2000) As Jansem (2014) believes, if we want to professionalize second language teacher education, we should deal with teachers' actions, thoughts and beliefs so that we can understand what being a teacher means. Here, she puts an emphasis on how important studying teacher cognition is for essential innovations in second language teacher education. Examining their thoughts, actions and beliefs helps one have an idea of how to cope with educating language teachers. Similarly, as Abdelhafez (2010) states, data gathered from the study of TK may help one in foreign language teacher education curriculum design. Such an approach is in line with Robert's (1998) social constructivist approach. It is also related to Freeman and Johnson's (1998) model which is about how to re-

conceptualize language teacher education. Some others including Driel and Meijer (2001) also believe that studying what teachers know may be helpful for the improvement of LTE. It may help making useful innovations for educating of EF/ ESL staff as well. Likewise, Jansem (2014) is in the belief that research related to teacher knowledge base may be the main basis to develop SLTE. Thus, teacher education programs can definitely make use of the current research about instructors' knowledge base.

Another important point is the effect of teacher knowledge on what students learn. Darling-Hammond (2000) highlights the importance of teacher knowledge on student learning. She believes that teacher's CK and GPK should be improved .In this way they can teach the subject matter successfully. She supports the idea that if we want to improve teaching, we need to strengthen teacher knowledge. This point emphasizes importance of studying the knowledge base of EFL/EFL teachers as well. The relationship between student learning and teacher knowledge should never be underestimated as how successful learners will be when learning L2 is definitely affected by their teachers' KB.

Investigating novice and experienced teachers' KB in the same research has some advantages. Gatbonton (2008) supports the idea that by studying both groups together in one study, one can discover their similarities and differences better. Thus, one can more easily compare the effectiveness and ineffectiveness of the two and make a number of other implications for foreign language teaching. We can also have an idea of the needs of both types of teachers. In this way, educators and course developers may be able to improve related points in in-service professional training programs in addition to in pre-service TE

Instructors themselves may benefit from dealing with their knowledge bases. Abdelhafez (2010) emphasizes the role of knowledge on the success of teachers. He believes that knowledge is power of the teacher. Finding gaps in one' own knowledge of subject matter, pedagogy, students or some other points may encourage one to take action and improve oneself in the profession. Therefore, ELT professionals in the context of Turkish universities can make use of the findings of the study for themselves. They may realize what knowledge they lack, that is, what weaknesses they have and then look for ways to get rid of their weaknesses. Thus, the first step of improvement is to be aware of one's own gaps in knowledge.

Examining the knowledge base is important especially for nonnative teachers of English. When examining language teacher's knowledge base, Lin (2010) worked only with native speakers of English in an ESL context. She pointed out that this was one of the limitations of her study since including nonnative English teachers could show us the way the two types of teachers differ considering the cultural aspects of their field knowledge. Similarly, Yazdanpanah (2011) whose study includes only ESL teachers whose native language is English suggests that her study should be replicated in a context in which nonnative teachers of English teach the language as a FL. Thus, this study should improve the field of the investigation of nonnative EFL instructors' KB.

Language teacher professionalism may also benefit from the conclusions of the study as the perspectives of experienced instructors are taken into consideration. Teachers could become more professional when they become aware of the strengths of experienced teachers. (Jansem, 2018) Experienced teachers' effective teaching practices could be good models for the inexperienced ones.

Students who are going to be foreign language teachers may benefit from this study. Studying KB of language teachers and what it constitutes increases student learning. In addition, future teachers of English could be educated better when they learn about the needs of language teaching. (Kayi-Aydar, 2011) In other words, they will be able to learn more about their profession by the help of the study. Making a comparison between the knowledge bases of experienced and novice instructors may show us what is missing in terms of the components of different knowledge categories and how teacher training and teacher development may help teachers improve themselves. (Gatbonton, 2008) Learning about the missing parts of teachers' KB helps teacher educators make necessary improvements in their teacher training and teacher development programs.

ELT methodology can make use of the findings. Saraç-Süzer (2007) emphasizes that there have been a great number of developments in ELT and in order to understand language teaching methodology, one should thoroughly examine knowledge of language teachers as well as their experiences. In this way, improvements will be possible in various subfields of ELT methodology including teaching integrated skills, vocabulary, grammar... and so on.

Thus, one may conclude that there must be more research on teacher knowledge especially for language teachers. Such research could give us valuable information that may be used to educate and develop language teachers. As Alvarez (2009) argues examining the complexities and characteristics of teacher knowledge and in what ways that is shaped gives one the opportunity to deal successfully with teachers' classroom practices, language teaching policies as well as professional development activities.

Examining teachers' knowledge base and how they have formed this knowledge will help one understand language teachers' thoughts, feelings and actions better. In this way, one will get an idea of the complexities of their KB formation and the complexities of the implementation of what they know into what they do.. Meanwhile, a number of implications could be drawn especially for LTE programs and for teachers related to how they can improve themselves professionally.

#### **Basic Assumptions of the Study**

- All participants, that is, instructors teaching English at various state universities in Turkey are eager to participate in the current research.
- The questionnaire was honestly filled in by all the instructors. They all gave genuine answers.
- The interview questions were honestly answered by all the interviewees. They all gave straight answers.
- The researcher designed the qualitative part accurately and this part aimed to give answers to RQs adequately.

#### Context

According to statistical data published by HEC in 2016, there are more than 155.000 academicians in Turkey. In different state and private universities in Turkey, there are 88.114 male and 76.102 female academic personnel. This makes a total of 155.216 academicians. As for different titles, there are 22.416 professors (%30.52), 15.023 associate professors (%9.68), 33.301 assistant professors , now called dr. teaching fellow, 20.943 instructors (%13.49), 47.373 research assistants (%30.52), 10.295 lecturers (%6.63) and 3865 specialist (%2.49) However, now all lecturers, instructors and specialists are all named as instructors.

Most instructors work at the "Schools of Foreign Languages". They may also work at various departments of their universities such as departments of "Foreign Language Education", "English Language and Literature", "American Language and Literature", "Linguistics", "Translation and Interpretation"... and so on. Instructors teaching General English have a great role of teaching a foreign language to university students from different departments. English instructors working at different departments rather than in prep classes also have both general and specific aims to teach a foreign language.

#### **Chapter II: Literature Review**

#### Introduction

All related constructs are thoroughly studied. The review starts from the most general topics to the most specific ones. Firstly, teacher cognition is discussed and the importance of the concept is explained. Then, teacher knowledge is defined by various researchers. Then, research studies related to the categorization of knowledge base are mentioned, construction of knowledge base is reviewed, the differences are explained. In the end, professional development for teachers is put forth.

#### **Teacher cognition**

As teacher knowledge is a part of cognition of teachers', the study starts from teacher cognition. One needs to examine teacher cognition for the aim of understanding teachers in general. Borg (2003) explains that the term encompasses their knowledge, beliefs and thoughts. However, as there is a terminology problem, various terms are used in literature such as preconceptions, dispositions, personal theories, opinions, perceptions, conceptions... for the term of teacher cognition. Pajares (1992) also emphasizes this terminology problem arguing that it is difficult to form a general framework about teacher cognition because of the different constructs used in research.

The term 'teacher cognition' encompasses a number of different terms. One of them is practical knowledge. It is used by many researchers including Elbaz, (1981, 1983); Meijer, Verloop, & Beijard, 1999). Some other researchers use the term "pedagogical knowledge" such as Gatbonton (1999) and Shulman (1987); "beliefs" (Richards & Lockhart, 1996); "BAK" by (Woods, 1996); or "maxims" (Richards, 1996)

According to Borg (2009) teacher cognition has great importance in the way teachers learn and teach. It is greatly affected by what teachers experienced when they were learners. Their cognitions influence the way they learn at university. They also affect how they interpret new information. They may be more influential in how teachers perform in class than their teacher education programs. Then, teachers are greatly affected by their cognitions. It should also be remembered that teachers' cognitions may not be easy to change. In addition, what teachers do in class may be under the influence of their cognitions although one may not always recognize their cognitions by observing what teachers do in class. Finally, Borg indicates that teachers' beliefs may affect their practices while these practices may also change teachers' beliefs. Therefore, it is called bidirectional as their beliefs and practices affect and are affected by one another.

Teacher cognition studies are really broad since many groups of people are concerned with those studies. The investigations of teachers' cognitions affect various groups including educators, managers, research fellows in addition to all other people concerned with the teacher professionalisms. (Öztürk, 2014)

Another important issue is that one cannot easily distinguish "what teachers know" and "what they believe". (Pajares, 1992). Then, the definitions for the terms "knowledge", "beliefs" and "attitudes" are unclear. So as to make a distinction, some researchers made clear definitions for each of these terms. For instance, according to Verloop et al. (2001), beliefs mean "personal values, attitudes, and ideologies" (p. 446), while knowledge means "a teacher's more factual propositions" (p. 446). As for attitudes, they may include many positive or negative beliefs and unlike beliefs, they have an evaluative and subjective nature. (Kennedy, 1996). Apart from that, knowledge is defined by Alexander, Schallert, & Hare as "all that a person knows or believes to be true, whether or not it is verified as true in some sort of objective or external way" (1991, p. 317).

Although there are definitions for each of these three terms, they were used differently by some other researchers. For instance, Woods (1996) used a new term for the first time. He called the term BAK, which encompasses three terms, namely, *beliefs*, *assumptions* and *knowledge*. He also resembled the term to schemata. In his research, he studied the effects on teachers' BAK. He summed up these effects as what they experienced as L2 learners in the past, what they experienced as teachers and then what they did later while learning L2 and while teaching overseas for one particular person he observed. It is concluded in the study that it is not easy to distinguish the elements of BAK from one another. Therefore, BAK should be seen integrative

Apart from Woods, Richards (1996) also saw cognition of teachers holistically. He used the term 'teachers' maxims'. These maxims are results of what they experienced while teaching and learning as well as their belief and values. From this explanation, it could be inferred that teachers' maxims are sum of teachers' teaching theories and teaching principles. And the sources of their maxims are what they experienced previously in addition to their own beliefs and values related to their profession.

Lee Shulman and some other researchers in the same period also greatly contributed to the field of teacher cognition. (e.g. Grossman et al., 1989; Shulman, 1986a, 1986b, 1987) They studied teacher knowledge in general and classified it into separate categories.

According to Borg (2003), teachers' cognitions, including what they know, what they think and what they believe are complicated, practical and personalized. They are also affected by context. Borg (1997) invents a figure which summarizes the type of cognitions, how they are established and their influences. In the figure, four main elements are listed, namely, schooling, contextual factors, professional coursework, and implementations in class. Teacher cognition, that is, "beliefs, knowledge, theories, attitudes, images, conceptions, assumptions, metaphors, and perspectives about teaching, teachers, learning, students, subject matter, curricula, materials, instructional activities and self" are affected by experience of class implementations. (Borg, 2003, p.82) Contextual factors may modify teachers' cognitions as well. Students' studies at university can influence previous cognitions. Finally, what they

do in class affects their cognitions. They may or may not be aware of this process. Then,

teacher cognition is affected by conditions such as what they experienced as learners, what they do professionally and what they do with their students in class.

Knowledge base of English language TE programs must be investigated in terms of cognition of teachers. After reviewing a great number of articles on teacher cognition, Erdoğan (2005) summarizes that there is still little research about English language teacher education which focuses on teacher cognition. She puts emphasis on examining cognition of teachers, in order to deal with knowledge base of ELTE. The researcher recommends that much more research is necessary in ELTE especially for nonnative teachers of English. As for the connection of teacher knowledge and cognition, one may easily say that the TK studies became possible by teacher cognition studies.

In short, a huge number of studies exist related to teacher cognition. These studies include the cognitions of different groups, namely, student-teachers, novice and experienced teachers. While a great many of them focus on pre-service years and explore issues including their beliefs, knowledge or actions, some other studies are related to the newly graduated teachers' cognitions. Meanwhile, some studies aim to put forth in what ways novice and experienced teachers are the same or different considering their beliefs, knowledge, decisions or actions. In addition, there are studies of practicing teachers examining their knowledge, practices, thoughts or preferences in terms of language teaching. One can shortly say that teachers' mental lives greatly affect and are affected by their experience, training and practices in class.

#### **Teacher knowledge**

Knowledge base is defined as "domains of scholarship and experience from which teachers may draw their understanding" (Shulman, 1999, p. 61). When literature on teacher knowledge is examined, one may come across a number of different definitions made by

different researchers. Therefore, a number of definitions are made for teacher knowledge. For instance, according to Johnston and Goettsch (2000) teacher knowledge is "an ongoing interaction between the teacher's knowledge and actions and her awareness of student knowledge and student learning" (p. 17). As for Richards (1996), teacher knowledge is defined as "maxims", which reflect their own philosophies of teaching. For him, these maxims are shaped by what they experienced as learners and then teachers, undergraduate program experiences and their individual belief systems.

Some other researchers define teacher knowledge differently. For Richards (1994, p.402), teacher knowledge is "craft knowledge" consisting of a number of knowledge hierarchies including "skills and procedures" at a narrow level and individual decision making abilities considering different contexts.

Studying teacher knowledge entails to distinct formal from practical knowledge. According to Fensternmacher (1994), literature related to research studies about effective teaching generates formal knowledge whereas teachers themselves generate practical knowledge by experimenting and reflecting on their classroom practices. Therefore, the latter is called personal and situational.

Some different terms are suggested by different researchers. For instance, Golombek (1998, p.448) cites Clandinin and Connely (1987) and benefit from term "personal practical knowledge", affected by teachers' lives. Gatbonton (1999) defines teacher knowledge as "pedagogical knowledge": TK about how teaching is actualized.

Fradd and Lee (1998) believe that the success of teaching depends on having necessary knowledge. They believe that TK includes "knowledge, skills and dispositions" schoolteachers need to successfully teach the subject matter. (pp.761-762)

Another perspective is that 'learning to teach' is closely related to how teachers take part in social practices and contexts. Their knowledge includes "knowledge of self, setting, students, curriculum, and community". (Johnson, 2009, p. 13). Therefore, a "socially situated" perspective is necessary for comprehending teacher knowledge. (Johnson& Freeman, 2001) Such as perspective highlights the importance of experiences people have when they are involved in social activities.

Teacher knowledge is also emphasized in the 'postmethod' condition. This condition gives importance to individual differences among teachers and their implementations in class. (Kumaravadivelu, 2003) There are a variety of differences of how teachers act in class. And individual differences play a big role here. Therefore, examining teacher knowledge is priotized in the postmethod condition.

Meanwhile, some researchers mentioned the term 'personal practical knowledge'. For instance, according to Clandinin (2013) teachers' individual characteristics affected how they used their knowledge. Clandinin& Connelly (1987) also adopted a holistic view of teacher knowledge and investigated teachers' personal experiences as well as their biographies. They define the term like this: "personal practical knowledge: knowledge which is experiential, embodied, and reconstructed out of the narratives of a teacher's life" (p. 490). According to Clandinin & Connelly (1987) teacher knowledge is not fixed, that is, teachers can reshape it. Golombek (1998) also emphasizes experiential knowledge by examining teachers' stories as those stories can give hints about teachers' affective aspects of personal practical knowledge. Thus, he recommends that teachers reflect on these stories.

Some researchers differentiate knowledge in terms of by whom they are produced. For instance, Meijer at al. (1999) mention two different kinds. The first one is knowledge produced by teachers by the help of their experiences. The second one is knowledge which researchers produce for teachers to use. As the sources of these two knowledge types are different, they differ from one another.

Some researchers highlighted the importance of different characteristics of teacher knowledge. Ben-Peretz (2011) examined teacher knowledge by reviewing various articles and concluded that the definition of TK extended. It now includes not only subject matter, curriculum and PCK but also some general topics such as societal issues and multiculturalism. Here social constructivist approach is adopted and some more general topics are included in teacher knowledge studies. In addition, she summed up that there is now a tendency to deal with "personal aspects of knowledge" (p.3). Apart from that, the importance of contextual factors is emphasized in affecting TK.

Teacher knowledge does not only include teachers' present knowledge. Xu & Liu (2009) believe that teacher knowledge includes teachers' previous experiences, current actions and plans for the future. Then, it encompasses what they experienced, how they act now as well as how they will behave in the future.

The term teacher knowledge is often used by many researchers in a broad sense including some aspects of beliefs and values. For instance, for Verloop, Van-Driel & Meijer (2001) TK covers different kinds of cognitions including both conscious ideas and unconscious intuitions. They believe that dealing with the term in such a way makes research on teacher knowledge easier as one cannot easily understand what is inside the minds of the teachers. The teacher may be using "knowledge", "beliefs", and "conceptions" or "intuitions" but we cannot guess which one the teacher is mentioning. Another important point is that, claiming to know is not the same as claiming to believe (Abdelhafez (2010). Therefore, what teachers claim may not be true .Their actions or decisions in class must be observed to have an idea of their knowledge base.

In his thesis, Abdelhafez (2010) mentions two models of TK, namely, "the technical rationalistic model and the professional practical model". (p.24). Influenced by behaviorism, the first model supports the idea that teachers' classroom practice must only stem from

scientific research evidence. In this model, teachers' experience and reflection or their different teaching contexts are not taken into consideration. However, one cannot really generalize theory to all contexts. As for it second model, it emphasizes the knowledge practicing teachers have. Such knowledge is influenced by experience and various contexts. Therefore, this knowledge is said to be context-specific and teachers themselves produce their own knowledge. (Hegarty, 2000 cited in Abdelhafez, 2010) Then, such a model of teacher knowledge points out the role of the teacher, context and experience.

Some researchers emphasize the integrated nature of TK. For example, Tsui (2003) argues that TK is usually defined as "...an integrated whole that cannot be separated into distinct knowledge domains" (p. 65). Similarly, for some researchers, as teacher knowledge is a complicated concept, it is hard to divide it into different categories. (Johnston et al., 2000). Then some researchers such as Verloop et al. (2001) suggest that rather than trying to label teacher knowledge, one should try to thoroughly investigate it.

Language teacher educators' KB is also another area of study for researchers. Looking at language teacher educators' knowledge base holistically, Moradkhani, Akbari, Samar & Kiany (2013) used the term "pedagogical knowledge". The pedagogical knowledge had a holistic view of teachers' knowledge base and included all theoretical, practical as well as personal elements of their knowledge base, as argued by Woods and Çakır (2011)

Meanwhile, there are different forms for representing teacher knowledge. Shulman (1987) argues that they are listed as "*propositional knowledge*", "*case knowledge*" and "*strategic knowledge*". Propositions are found in what is taught to teachers, studies related to teaching and learning and teaching experience. He argues that three kinds of 'propositional knowledge' exist. These are "disciplined empirical or philosophical inquiry, practical experience and ethical reasoning". (p.11) As for case knowledge, it is accepted that in order for something to be a case, it must be an example of a larger unit. These must be recorded

adequately. The third one is called *strategic knowledge*. It is used if the teacher has difficulty finding a solution for a difficulty because of not being able to make use of principles or because of the contradictory cases.

A number of studies are interested in investigating the KB of LTE. According to Johnson& Freeman (2001) the KB of LTE includes 3 parts: "the teacher as a learner of teaching, the contexts of schools and schooling, and the activity of teaching and learning". (p.58). They are all interrelated and they explain the way they get ready for teaching in a sociocultural setting. Firstly, teachers must be learners of how to teach and factors influencing this process of how they learn to teach should be examined. Second, schools where teachers work and schooling that is socio-cultural practices in schools should be studied to understand how important contexts are for them. Finally, teachers' actual performance should be investigated rather than their disciplinary knowledge. In sum, "teacher learning is seen viewed from a socially-situated perspective". (p.60). Such a perspective suggests that teachers are more influenced by where they work and their schooling experiences rather than defined knowledge given to them at their second language teacher education programs.

Thus, we may conclude that different researchers have looked at teacher knowledge from different perspectives. Yazdanpanah (2011) sums up that there are some general commonalities of teacher knowledge: It influences as teachers' practice, it is contextual, it is learnt by observing or communicating with others, it is a result of individual teaching experiences and training and it is and affected by teachers' own beliefs, values or personal stories.

#### **Knowledge base categories**

Knowledge base may be summed up as expertise, understanding, awareness, knowledge and skills that are required from effective teachers. (Faez, 2011) There are various studies about different domains of teacher knowledge. Abdelhafez (2010) stresses the

importance of knowledge domains arguing that "the more knowledge bases are mastered and implemented strategically by the teacher, the more effective he or she is." (p.68). Then, one needs to study them in detail. KB is composed of a number of categories and a number of proposals have been generated related to knowledge base categories in literature. As Johnson and Goettsch (2000) state, much work related to teachers' knowledge base has been under the influence of Shulman's framework. Shulman (1987) suggests a theoretical model including different categories. They are listed as

- "Content knowledge"
- "General pedagogical knowledge"
- "Pedagogical content knowledge"
- "Curriculum knowledge"
- "Knowledge of the learner"
- "Knowledge of educational ends."
- "Knowledge of educational contexts purposes and values as well as their philosophical and historical grounds". (p.8)

Apart from that, he divides TK into two general categories: general and specific. While numbers 2, 5, 6 and 7 reflect general parts of TK, numbers 1,3 and 4 refer to specific parts of TK.

Meanwhile, some researchers criticize Shulman's framework for being too general. Researchers such as Clarke (1994) criticize borrowing knowledge from other disciplines for language teaching because they believe other disciplines do not consider teachers' and learners' experiences in language teaching. Similarly, some others including McCormack et al (2006) argue that the given framework is too general and it cannot be applied to all teachers from different fields. In spite of that, one may definitely say that making use of such an agreed upon framework helps researchers study language teacher knowledge base greatly.

Some researchers used Shulman's framework as a model and then made some modifications themselves. For instance, Yang (2011) adopted and modified Shulman's (1987) framework and added two more categories to the existing framework. Thus, his model of knowledge base for teachers giving courses at university consisted of "knowledge of content, pedagogy, curriculum, learners, contexts, educational goals, self, and assessment" (p.78). Two categories are added to the original framework, namely, knowledge of self and assessment.

Some researchers adapted Shulman's (1987) model in different ways. To exemplify, Turner-Bisset's (1999) model included nine domains, namely, "subject matter knowledge", "curriculum knowledge", "general pedagogical knowledge", "knowledge of models of teaching", "knowledge of learners", "knowledge of self", "knowledge of educational contexts", "knowledge of educational ends", and "pedagogical content knowledge". In her division, the first one had 3 sub domains. The first is called substantive subject matter. The second is called syntactic subject matter, which is about how the propositional knowledge is produced. The third is related to what one believes considering the subject.

Various classifications are used for TK in general or for TK in SLTE. For instance, Richards (1996) asserts that the KB for SLT includes these types of *knowledge*:

"1. Knowledge about content, issues about curriculum as well as content aspects of teaching,2. Knowledge about the teacher's personal teaching philosophy and the teacher's view of what constitutes good teaching." (p.284).

According to Maldarez & Wedell (2007) knowledge base for teacher education should encompass three categories, namely "knowing about the subject, the aims and role of the subject within the wider curriculum... knowing how to use strategies to support pupils and their won learning... and knowing to use appropriate aspects of the other kinds of knowledge while actually teaching" (p.18).

Banegas (2009) studied the KB in initial language teacher education (ILTE) in Chubut, Argentina. 15 teachers, all of whom had completed ILTE program that lasted for 4 years, were asked to decide what the balance should be in the knowledge base in ILTE programs. They suggested that ELT pedagogical knowledge should have %27, general pedagogical knowledge should have %17, general cultural knowledge should have %21 and subject matter knowledge should have %35. As content knowledge encompasses combination of "subject matter knowledge" and "cultural knowledge", respondents view that CK should cover more than half of the ILTE programs. (%56) This study emphasizes how important CK is for the initial language teacher education programs.

Second language teacher knowledge base needs to follow some steps. According to Graves (2009), TK has two components, namely, content and method/skills components and these are inseparable parts of the KB of teachers. Firstly, the KB of SLTE needs to analyze the needs of student teachers by studying their present situations. Then, general aims and what they will be able to do must be explained in detail. They should be equipped especially with content and PCK. Finally, how effective the process was must be questioned.

Grossman (1990) divides TK into four categories. The first one is knowledge of subject matter. The others are GPK, PCK and contextual knowledge.

Darling-Hammond suggested a framework of KB for teacher learning in general and three different types are listed for this framework. The framework included

"1.Knowledge of *learners* and how they learn...,

2. Knowledge of *curriculum* content and goals...

3. Understanding of *teaching* in light of the content and learners to be taught, as informed by assessment and supported by classroom environments" (2006b, p.83)

Classifications may differ for language teachers. Some researchers make narrower classifications. For instance, according to Salvatori & MacFarlan's (2009), language teachers need three different kinds of necessary knowledge, namely, language proficiency, cultural competency, and pedagogical skills. Different from other researchers, they mention the importance of cultural competency for L2 teachers.

Fradd and Lee (1998) studied the KB of a TESOL program. They listed the parts of the teachers' KB as

"-Knowledge of academic content including

knowledge of the language acquisition process

knowledge of subject area content

knowledge of culture and pragmatic language use

-Knowledge of pedagogy including

Curriculum and instruction

Assessment

Technology

-Knowledge of students, schools and communities including

The classroom context

The school context

The community context" (pp.765-769)

Such knowledge should help ESOL teachers in terms of effective instruction. Then, national and international factors should be taken into consideration together.

Recently, researchers have considered the expectations of the world we live in. The framework proposed by Li (2013) suggests that the required professional competencies for L2 teachers thinking of the demands of the modern world may be examined in terms of knowledge base and personality traits. The fundamental knowledge and skills may be listed as

"- knowledge about learners(KL),

- knowledge and skills about learning and teaching(KSLT),

- knowledge about English (KE);
- knowledge of education,
- knowledge of school and community and

Knowledge about learners (KL) includes

- knowledge of child development and
- knowledge of learners' cultures.

Knowledge and skills about learning and teaching (KSLT) includes

- general pedagogical knowledge (GPK),
- -pedagogical content knowledge (PCK) and
- knowledge of learning and teaching (KLT).

Knowledge of English (KE) includes

- -English language skills,
- -content knowledge and
- knowledge of curriculum.

As for the modern demanded knowledge and skills, they include

- knowledge and skills of technology,
- knowledge of cultures

- knowledge & skills of academic research" (p.65)

Richards (2011) divides CK into disciplinary knowledge and PCK. He also lists contextual knowledge, discourse knowledge and technological pedagogical content knowledge among KB categories. He explains disciplinary knowledge as preparing language teachers in terms of theory by the help of courses like second language acquisition, sociolinguistics, theories of language and discourse analysis. Such courses give teachers knowledge of the discipline. However, PCK is about language teaching and consists of curriculum planning, classroom management and assessment. The researcher then sees PCK in a broad sense. Therefore, it covers some aspects of curriculum knowledge and GPK. The researcher explains knowledge of discourse as being familiar with a number of terms like online learning, CBI and belief in one's own success. As for contextual factors, they include goals and mission of school, the physical resources included in addition to different characteristics of both teachers and students.

In another study, Zhang and Zhan (2014) probed L2 teachers' KB in Canada. Findings indicate that their knowledge base contains six categories, namely, "content knowledge, pedagogical knowledge, pedagogical content knowledge, contextual knowledge, continuity with past experiences, and support knowledge". (p. 568).

One needs to mention that that knowledge domains may not always be isolated. The teacher may need to integrate knowledge areas in classroom practice. Johnston & Goettsch (2000) argue that one can find teacher knowledge categories melded in the actions of the teachers. This means that they may overlap and interact while they are teaching. They indicate that "in reality, these categories [of knowledge] are melded together in complex and indeed inextricable ways to produce multifaceted, holistic accounts of, and actions in, language teaching" (p. 461).

Some studies make definitions about the kinds of knowledge. For instance, "Action oriented knowledge" refers to the knowledge used by teachers immediately while instructing on a particular point in class. (Carter, 1990) "Personal practical knowledge" implies that knowledge is related to reasoning, and always changing. (Marland, 2001) "Professional craft knowledge" is a result of what teachers experienced while teaching. (Shimahara, 1998) It may be concluded from these different terms that although these terms have many things in common, they differ in what they emphasize.

Abdelhafez (2010) studied the KB of experienced teachers applying to qualitative and quantitative data gathering methods. Participant's responses revealed six groups of TK, namely, "subject matter, pedagogy, students, classroom learning environment, curriculum and self." (p.2) Apart from that, it was concluded that although one could not observe all TK, it definitely had an impact on their classroom implementations especially on the decisions they made while teaching.

Saleh and Yusof (2015) studied what role of teachers' "knowledge of teaching English" played in their effectiveness and different instructional practices. The quantitative study including 133 EFL teachers who had different teaching experiences revealed that teaching skills is the main element of FL teachers' "knowledge of teaching English". In addition, no significant differences were observed considering what experience they had.

One quantitative study related to teacher knowledge is by Yazdanpanah. (2015). In the study different kinds of knowledge that teachers give importance to while giving courses are explored. For the study, syllabuses of courses given at university for second language teacher candidates were made use of. A questionnaire is made by the researcher and it is and given to 108 language teachers, who all have experience as teachers. Seven categories are identified: "Knowledge of Teaching Methodology, Curriculum Knowledge, Knowledge of Learners, Knowledge of Resources and Technology, Knowledge of Contextual Factors, Knowledge of Language Learning Theories, and Knowledge of Language Components." (p.63). The types are categorized into two: "Knowledge of Teaching" and "Knowledge of Language". KT includes the first four while KL includes the last three. The study reveals that teachers give more importance to knowledge of teaching than KL, i.e, KT was regarded by language teachers as more significant than knowledge of language.

Jansem (2014) examined foreign language teachers' views of their KB while teaching in class. The participants concluded that their KB included "language construction and skills, other content areas, ability to teach, understanding students' strengths, weaknesses, and needs, the changing world, social contexts, and technology as well as problem solving ability." (p.252). Finally, it was concluded that their knowledge categories were found to be integrated during the teaching process. Apart from that, in Jansem's study, knowledge base examined in teaching practices was found consistent with Shulman's division. Content knowledge was found inside KL including L2 elements and skills. GPK was used for classroom management. Delivery of instruction became possible by pedagogical content knowledge. Students' weak and strong points as well as needs were understood by knowledge of learners. Meanwhile Shulman's two categories, that is, issues of curriculum knowledge, knowledge of contexts were explained by different categories. Their teaching not listed in Shulman's categories but was mentioned was part of teachers' knowledge is Problem solving. This may be seen as an expected result because, as Shulman (1987) argues, the framework is object to change. It means that a new knowledge base could be discovered later on or one of the knowledge types may change slightly in time.

Kayi-Aydar (2011) qualitatively investigated various knowledge categories teachers possess and apply in class. Observations of actual lessons and interviews with teachers suggested that the four ESL teachers in the study had four categories of KB, namely, CK, "knowledge of other languages, other fields and of learners. Therefore, it was revealed that in addition to content knowledge, a teacher needed to have knowledge related to other fields.

Meanwhile, Lin (2010) noted that despite the fact that Shulman's work about knowledge base categories affected research in this area greatly, it is not really clear what those categories involve. Therefore, she aims to simplify the categories and uses the listed categories of knowledge in her study. The list includes "Knowledge of Context, Knowledge of Resources, Pedagogical Content Knowledge, Subject Matter Knowledge, Knowledge of Students, General Pedagogical Knowledge, Knowledge of Learning, Knowledge of Self" (p.70).

Knowledge base in second/foreign language	Lafayette (1993)	Language proficiency. Civilization and culture. Language analysis.
	Day (1993)	Content knowledge. Pedagogic knowledge. Pedagogic content knowledge. Support knowledge.
	Richards (1998)	Theories of teaching. Teaching skills. Communication skills and language proficiency. Subject matter knowledge. Pedagogical reasoning and decision making. Contextual knowledge.
	Freeman and Johnson (1998)	The teacher as learner of language teaching. Schools and schooling as historical and sociocultural contexts for teacher learning. The teacher's pedagogical thinking about teaching, the subject matter and its content and the language learning process.
	Tarone and Allwright(2005)	The second/foreign language learner. The learner learning. Research on second language acquisition.

Figure 1.Overview of Knowledge base of teachers. (Fandino (2013, p.87)

When literature was examined, more categories were added:

Table 1

Categories of KB

Categories of KB	
Elbaz (1983)	"Knowledge of subject matter" "Knowledge of curriculum" "Knowledge of instruction" "Knowledge of self" "Knowledge of milieu of schooling"
Grossman (1990)	"Subject matter knowledge" "General pedagogical knowledge" "Pedagogical Content Knowledge" "Knowledge of Context"

Fernsermarcher (1994)	"Formal knowledge" "Practical knowledge"
Roberts (1998)	"Content knowledge" "Pedagogical content knowledge" "General pedagogic knowledge" "Curricular knowledge" "Contextual knowledge" "Process knowledge"
Fradd and Lee (1998)	"Knowledge of academic content" "Knowledge of pedagogy" "Knowledge of students, schools and communities"
Golombek (1998)	"Knowledge of self" "Knowledge of subject matter" "Knowledge of instruction" "Knowledge of contexts"
Turner –Bisset(1999)	"Subject matter knowledge" "Curriculum knowledge" "General pedagogical knowledge" "Knowledge of models of teaching" "Knowledge of learners" "Knowledge of self" "Knowledge of self" "Knowledge of educational contexts" "Knowledge of educational ends"
Cochran-Smith and Lytle (1999)	"Content (subject matter) knowledge" "Knowledge related to the disciplinary concepts of education" "Human development and learners" "Organizationof classrooms" "Pedagogy" "Assessment" "The social and cultural contexts of teaching and schooling" "Knowledge of teaching as a profession".

Meijer, et. al., 1999	"Subject-matter knowledge" "Student knowledge" "Knowledge of student learning" "Knowledge of purposes" "Knowledge of curriculum"
Andrews (1999)	"Teacher language awareness" "Subject matter cognition" "Knowledge of learners" "Knowledge of curriculum" "Knowledge of pedagogy" "Knowledge of context"
Richards (2001)	"Content knowledge" "Technological pedagogical content knowledge" "Contextual knowledge" "Discourse knowledge"
Nunan (2001)	"Declarative knowledge" "Procedural Knowledge" "Discipline specific procedural knowledge" "General procedural knowledge"
Clark & Walsch (2002)	"content knowledge" "pedagogical knowledge" "pedagogical content knowledge" "teacher's personal knowledge" "knowledge of context"
Tsui (2003)	<ul> <li>"Knowledge of English language"</li> <li>"Pedagogical knowledge"</li> <li>"Language learning knowledge"</li> <li>"Knowledge of managing learning"</li> <li>"Other curriculum knowledge"</li> <li>"Knowledge about the learner"</li> </ul>
Malderez & Wedell (2007,p.18)	" the subject" "knowing how to use strategies to support pupils and their own learning" "knowing to use appropriate aspects of the other kinds of knowledge while actually teaching"
Salvatori& MacFarlane (2009)	"Language proficiency" "Cultural competency" "Pedagogical Skills"

Abdelhafez (2010)	<ul><li>"knowledge of subject matter"</li><li>"Knowledge of pedagogy"</li><li>"Knowledge of students"</li><li>"Knowledge of classroom learning environment"</li><li>"Knowledge of curriculum"</li><li>"Knowledge of self"</li></ul>
Han Gang (2011)	"Pedagogical knowledge" "Theoretical knowledge" "Practical knowledge" "Educational knowledge"
Kayi-Aydar (2011)	"Content knowledge" "Knowledge of other languages" "Knowledge of other fields" "Knowledge of learners"
Yang (2011)	<ul> <li>"Knowledge of content"</li> <li>"Knowledge of pedagogy"</li> <li>"Knowledge of curriculum"</li> <li>"Knowledge of learners"</li> <li>"Knowledge of contexts"</li> <li>"Knowledge of educational goals"</li> <li>"Knowledge of self"</li> <li>"Knowledge of assessment"</li> </ul>
Wei-Yan (2013)	<ul> <li>"knowledge about learners(KL)"</li> <li>"knowledge and skills about learning and teaching(KSLT)"</li> <li>"knowledge about English"(KE)</li> <li>"knowledge of general educational issues"</li> <li>"knowledge of school and community"</li> <li>"knowledge of general education"</li> </ul>
Jamsem (2014)	"Language construction and skills" "Some other content areas" "Teachers' ability to teach" "Understanding pupils' capabilities and needs" "The constantly changing world" "Technology" "Ability to solve problems"
Zhang and Zhang (2014)	"content knowledge" "pedagogical knowledge" "pedagogical content knowledge" "contextual knowledge" "continuity with past experiences" "support knowledge"

Oliveira (2015)	"Knowledge of educational contexts" "Knowledge of self" "Knowledge of learning" "Knowledge of learners" "Knowledge of curriculum and teaching"
Yazdanpanah (2015)	<ul> <li>"knowledge of practice"</li> <li>"Knowledge of learners"</li> <li>"Knowledge of resources and technology"</li> <li>"Knowledge of curriculum"</li> <li>"Knowledge of contextual factors"</li> <li>"Knowledge of language learning theories"</li> <li>"Knowledge of language components"</li> </ul>

## **Content knowledge**

Teachers must have this fundamental knowledge of their own disciplines so as to teach their specific subjects. It is a must for all teachers. Therefore, CK is what a teacher should have mastered. However, there is no one has an agreement about what is included under the title content knowledge for language teachers.

Shulman (1987) indicates that an English teacher must be informed about English and American literature, use and understand written and oral English and grammar, understand some novels and epics studied in class, curriculum and teaching interpretation and criticism theories. He also emphasizes the role of the teacher as s/he greatly affects student understanding of content. Therefore, besides being competent in CK, the teacher must have positive relations with students.

According to Tsui & Nicholson (1999), for ELT, content knowledge consists of 4 categories, namely, phonology, morphology, grammar and discourse. Then, language teachers' subject matter knowledge is made up of these four categories and they are the main components of their knowledge base.

Morton et al. (2006) reviewed research related to ESOL and found out that student teachers need to have adequate content knowledge. If they don't have the required systematic

and dynamic CK they must be satisfied with knowledge given in their coursebooks and if their students need more content, they will have difficulty presenting their students with more detailed explanations for students' confusions. They emphasize this by stating that students may not appreciate if they are not clearly informed about the points they have difficulty understanding.

Another important point is that there must be a match between what is taught to students at university regarding CK and what they will teach when they become teachers. (Richards (2008) If they do not get enough instruction on what they are required to teach in their profession, then they will have difficulties when teaching the particular point.

Teachers need this knowledge in order to teach their subjects. As Hegarty (2000) states, teachers should have fully mastered the content in order to teach it. Meanwhile, Borg (2006) notes that explaining what constitutes language teachers' CK is not easy. Therefore, he stresses the importance of investigating this knowledge thoroughly.

Some other researchers emphasize the critical element of CK for those teaching L2. For instance, Troudi (2005) argues that the teacher should also be familiar with the cultural and socio-political issues like the status and increasing power of English, or attitudes towards the English language. Thus, he believes that having such a critical look at the content knowledge will help teachers make their students become more aware of some issues including cultural, political and economic implications of learning the language.

In order to put forth what constitutes language teachers' CK, the views of 42 participants, both experts and non experts in the field were investigated by Khani and Hajizadeh (2016) in a qualitative study. A written questionnaire was applied and data was content analysis was chosen. The findings revealed 11 major categories of CK: "Teaching language skills and practices, Language structures, Teaching methods and approaches, Curriculum and material development, language acquisition theories, classroom context,

language testing theories and practices, learner- related knowledge, learning theories, ELT research methods, and approaches, teacher related knowledge" (p.979).

It is usually accepted that non-native teachers do not have a native-like command of L2. Richards (2011), however, believes that those teachers must be in a threshold level in L2 so as to teach the language effectively. He summarizes the needed language specific competencies for nonnative speakers as:

- understanding texts correctly
- providing appropriate models of language
- using the target language in class
- using the TL fluently.
- giving explanations as well as instructions in L2.
- giving examples for words and structures as well as making correct explanations.
- having a good command of classroom language
- deciding on the appropriate language resources such as the internet or magazines
- monitoring one's own spoken and written language for correctness
- providing appropriate feedback
- giving input appropriate considering the level of the students
- making learners have language enrichment experiences.

Banegas (2009) also emphasizes the importance of content knowledge stating that teachers cannot teach if their knowledge is missing. Therefore, knowing how to teach may be less important than knowing what to teach in some EFL contexts. Therefore, teachers are first expected to have adequate CK.

Saraç-Süzer (2007) believes that although content knowledge is must for teachers, it does not receive due attention in literature. Researchers do not find it necessary to define the

term as they feel it is obvious because of its name. She sees content knowledge a prerequisite to language teaching. She indicates that knowledge of the four skills is not enough to define content knowledge and one must consider the culture related to the language, that is, the target culture. Then, target culture is an inseparable part of CK.

Finally, Wei-Yan (2013) sums up that content knowledge encompasses all the structural elements that teachers need in order to teach students their specific subjects such as language. Content knowledge may be acquired from courses such as four skills, grammar, syntax, semantics, phonology, pragmatics, literature, second language acquisition and culture at undergraduate programs.

## Pedagogical knowledge

For Shulman (1987) PK encompasses "broad principles and strategies of classroom management and organization that appear to transcend subject matter" (p. 8). However, some other researchers use different terms for this category. For instance, Liakopoulou (2011) uses terms like "Professional Pedagogical Knowledge", or "Teaching Methodology" Another definition is made by Grossman and Richert. They comment that this knowledge involves "knowledge of theories of learning and general principles of instruction, an understanding of the various philosophies of education, general knowledge about learners, and knowledge of the principles and techniques of classroom management" (1988, p. 54)

Mullock (2006) indicates that PK is "accumulated knowledge about the act of teaching, including the goals, procedures, and strategies that form the basis for what teachers do in the classroom" (p.48). Despite all these definitions from a number of researchers, no general consensus has been reached on the different elements constituting GPK

Tsui (2003) divides PK two main types. These are "management of learning" and "management of resources". In addition to classroom management, management of learning is interested in out-of-classroom management. In others words, teacher' job is to enhance

learning by organizing the whole learning process. They do this by preparing beforehand as well as organizing what is needed afterwards. As for management of resources, teachers must use their materials at hand effectively.

In a study about pedagogical knowledge of ESL teachers in Canada, Gatbonton (1999) found out six main categories of PK. These general domains are knowledge about managing specific language items,

- students and their characteristics,
- the goal and subject matter of teaching,
- instructional flow,
- having good relationships with students,
- observing the progress of learners.

Pedagogical knowledge is used here as a broad term and consists of different kinds of teacher knowledge and it also includes knowledge of students. In fact, in the study PK also includes some areas of pedagogical content knowledge. Then, PK and PCK may sometimes overlap in some studies.

Mullock (2006) conducted a similar study, which may be called a replication to Gatbonton's study. He studied the PK of four TESOL teachers qualitatively. He determined the most frequently consulted knowledge domains. He ordered the domains as "factoring in student contributions, facilitating the instructional flow, handling language items, monitoring student progress, determining the goals and content of teaching, building rapport, institutional factors" (p.61)

It is seen in each of these studies that pedagogical knowledge encompasses various elements of TK including knowledge of learners, contextual knowledge and even some elements of PCK. Therefore, one may say that there is an overlap of teacher knowledge classifications in different studies. (Abdelhafez, 2010)

Saraç-Süzer (2007) uses pedagogical knowledge in a broad sense and includes under this category all knowledge related to approaches and strategies of learning and teaching, teaching techniques, development of materials, testing ... Then this pedagogical knowledge deals with teaching and learning in general.

In her study that puts forth how effective and practical of English Language Teacher Education programs are, Wei-Yan (2013) uses GPK as constituting

- management of class,
- motivation theory,
- skills for communication,
- development of different materials,
- interpersonal skills as well as
- knowledge of assessment.

She believes that GPK includes a number of principles and strategies and therefore it is necessary to create an effective atmosphere in class. Teaching would be impossible without satisfactory GPK.

General methodology courses usually give student-teachers knowledge about classroom management, general teaching principles, strategies and techniques. Thus, future teachers can make of such courses for improving GPK.

### Pedagogical content knowledge

It is the most studied KB category. (Cesur, 2012; Evens, Elen, & Depaepe, 2016; Hsiu-Hui, Yang, 2011; Liu, 2013). Shulman (1987) explains PCK as ". . . that special amalgam of content and pedagogy that is uniquely the province of teachers, their own special

form of professional understanding" (p.8). Besides, it comprises many different elements. For instance, although Turner-Bisset (1999) lists 11 different knowledge bases, she asserts that this knowledge category is like an umbrella as it contains all knowledge bases.

Researchers investigate what may constitute the PCK. In addition, it is useful to examine language teacher educators' KB. Moradkhani, Akbari, Samar & Kiany (2013) looked into the main categories of their pedagogical KB. The interviews put forth eight categories: "knowledge of language and related disciplines, knowledge of ELT theories, skills, and techniques, knowledge of context and social relations, knowledge of class, time, and learning management, knowledge of research and professional development, knowledge of practicum, knowledge of teachers and their assessment, and knowledge of reflective and critical teaching". (p.123). In addition to that, micro categories were determined for each macro category.

"Knowledge of language and related disciplines" includes knowing the TL, educational psychology, linguistics, testing, sociolinguistics, metalanguage, English for specific purposes, culture of the foreign language and art.

The second macro category, namely, "knowledge of ELT theories, skills and techniques" includes a number of micro categories such as teaching philosophy, jargons, error correction and classroom routines in addition to language teaching theories, methods, skills and techniques..

The third macro category, "*knowledge of context and social relations*" includes knowing future teachers' workplace, their students and their relations with other teachers in addition to knowledge of general policies and goals of education. The forth macro category, "knowledge of class, time and learning management" is about planning lessons, managing the class and time. The fifth macro category, "*knowledge of research and professional development*" is related to how to research considering resources in language teaching. Teachers need to know how to be involved in research such as action research.

The six macro category, "knowledge of practicum" is related to the practical side of teaching, that is, how to put theory into practice. They must use their theoretical knowledge in their classes.

The seventh category, "*knowledge of teachers and their assessment*" is related to how to deal with teacher candidates considering their needs, motivations, emotions... They must know how to be sensitive to future teachers and how to assess them using various valid and reliable techniques.

Finally, the last category, that is, '*knowledge of reflective and critical teaching*' is related to teacher reflection. Teachers need to reflect on their actions all the time. They should also be familiar with critical teaching skills.

Pedagogical content knowledge is not stable. Watzke (2007) investigates the development and change of PCK over time. In his longitudinal study, he studies 9 beginning teachers from France, Germany and Spain by examining their journals, observing classrooms as well as making focus group interviews adopting grounded theory. In order to put forth the change in PCK of L2, four main categories, namely, existing which affects their decisions while teaching, what they think of teacher control in class, aims for each lesson and ideas about how to respond to students' affective sides are determined. The findings support the belief that by teaching, conflicting, reflecting and resolving, beginning teachers' approaches to instruction develop. Thus, the researcher puts forth how important professional development is especially for the improvement of beginning teachers' PCK. Therefore, the role of experience is emphasized in the study. Findings support the idea that language teachers improve their PCK by experience.

Some factors greatly affect the PCK of teachers. According to Niess (2011), PCK is affected by subject matter, curriculum, learners, pedagogy and schools. They are all interrelated and they are extremely effective in shaping the PCK of the teachers. The teachers are affected by what they teach, which curriculum they follow, what kind of students they have, what general teaching methods they use and in which schools they work.

In order to give more detailed explanation of PCK, Shulman points out that teachers have a special way of thinking and this helps them change what CK they have for learners to make use of. For Wilson et al (1987, p. 118) such thinking is called "Pedagogical Reasoning." According to Pedagogical Reasoning Model, there are a number of activities that a teacher should use. "Pedagogical reasoning and action" process includes parts, namely, "comprehension, transformation, instruction, evaluation, reflection, and new comprehension." (p.119). Initially, they need to comprehend what they teach adequately. Then comes transformation where teachers transform what they understand of the subject matter into attainable forms for students. Instruction contains a number of teaching acts and pedagogy. Evaluation is an extension of instruction and a possibility to self-evaluate their own teaching. In reflection, they consider their own teaching critically. Finally, in 'new comprehension', they have a new understanding of their own teaching.

Meanwhile, some may find the concept Pedagogical Content Knowledge useless in ELT. Freeman (2002) criticizes the application of PCK to ELT because of the fact that teachers use English to teach what the course requires. Then the language they use is a part of what they teach. Therefore, he finds it an unworkable concept.

Courses including teaching the four skills, teaching grammar, vocabulary, approaches and methods in ELT ...etc represent PCK of language teachers. Future teachers of English may accumulate their PCK taking such courses at university or after they graduate.

#### **Knowledge of contexts**

A number of definitions are made for contextual knowledge. According to Borg (2003) these factors are "the social, psychological and environmental realities of the school and the classroom....parents, principals' requirements,...society, curriculum mandates, classroom and school layout, school policies, colleagues, standardized tests, and the availability of resources" (p. 94).

Turner-Bisset (1997) examined the waves of contextual elements on classroom performance. She put forth that factors involving the kind of school, the size of class, the support given to novice teachers, the feedback they get, the headteacher ... all had significant effect on teachers' performance. Teachers learn from the contexts in which they work. Having experienced various and rich contexts may help one become a more successful teacher.

Richards (1998) indicates that this knowledge is about how context and factors related to society or institution affect teachers' way of teaching L2. Among contextual factors are general views related to ELT, the community, workplace, managers, materials at hand and assessment..

Context has an impact on teaching the language. Yazdanpanah (2011) supports the idea that it is not possible to examine TK without considering context, that is, where theory is put into practice. Therefore, she emphasizes the need to study the context of teaching and methodology so that we can more clearly understand teacher knowledge. Therefore, we have to know about contextual factors which may affect the teaching process.

Balcioğlu and Kocaman (2013) investigated how effective teacher training programs are considering ELT academic staff. The findings highlighted the importance of contextual knowledge in determining how competent the teachers are. They viewed competent teachers as those who could flexibly adapt to new situations and cope with peculiarities. Similarly, Wei Yan (2013) stresses the importance of knowledge of educational contexts mentioning that competent teachers need to create a contextual learning environment getting help from school or community so that learners can make the best use of their input of knowledge as well as information. Therefore, one may conclude that a competent teacher should have this contextual knowledge.

Contextual factors affect the curriculum of SLTE programs as well. Nguyen (2013) made a comparison between the SLTE curricula of two universities in different countries. It is revealed that contextual factors have a great role in making the curricula. Therefore, the researcher suggests that future teachers be informed about the characteristics of context.

Contextual knowledge affects and is affected by other knowledge types. For instance, one's knowledge of context increases that teacher's 'knowledge of students' because contextual knowledge helps one make guesses about general characteristics of students in one context. As for university context, teachers may make some generalizations of students such as their motivations to learn a foreign language, age characteristics...etc.

### Knowledge of Education Ends, Purposes, and Values

Cited in Wei-Yan (2013), Shulman (1987) indicates that knowledge of education should consider the following points: being familiar with "related educational policies; the goals and current issues presented by the government related to educational affairs; and the understanding of the development of history and philosophy of education". Therefore, Wei-Yan (2013) sums up that so as to understand various polices, teachers must deal with the philosophy of education thoroughly. Thus, one may conclude that the philosophy of education is necessary for educational theories. Having such knowledge enables the teacher to consider the expectations of the society as well as the constructs of the education system.

#### Curricular knowledge

Shulman (1986, p.10) defines this as "the full range of programs designed for the teaching of particular subjects and topics at a given level, the variety of instructional materials available in relation to those programs, and the set of characteristics that serve as both the indications and contraindications for the use of particular curriculum or program materials in particular circumstances" As Wei-Yan (2013) sums up , having such knowledge helps teachers make the best use of materials and arrange their programs so that they can fully achieve their pedagogical objectives.

For language instructors working at universities teaching General English, the curriculum is mostly determined beforehand by the institution. Teachers are expected to obey the curriculum. For some courses such as EAP or ESP, teachers may need to implement their own curriculum.

## **Knowledge of learners**

Teachers must have related knowledge of learners including their needs, wants, desires, interests, different motivations to learn the language. If teachers lack knowledge of their learners such as their cognitive processes, they will not be able to choose correct strategies to teach L2. Meijer et al. (1999) discovered that this is among the areas of 13 language teachers' 'practical knowledge' in Netherlands. They divided this knowledge into three different categories, namely, knowledge about their characteristics, environment and motivation. This means that teachers' views of their students may affect how they teach particular subjects and how they motivate their students.

It may be said that effective teachers give high priority to having knowledge of their students. Studying the knowledge base of very effective teachers, Mayer & Marland (1997) found out that such teachers had great knowledge about their students. Their knowledge of their classes included their students' different ability levels and educational background. In

addition, teachers had knowledge of the groupings in their classes as well as the students individually.

In a different context Wei-Yan (2013) highlights the importance of knowledge of learners and recommends that one should focus on students in order to improve one's professional competencies. Therefore, she argues that teachers should be knowledgeable about child developments and they should have positive attitude towards the children. Apart from that, they should take into consideration their learners' own cultures.

#### **Knowledge of self**

The importance of "knowledge of self" is emphasized by a number of researchers. (Elbaz, 1983; Kagan, 1992; Turner-Bisset, 1997; Oliveira, 2015; Golombek, 1998; Abdelhafez, 2010; Yang, 2011) Being able to evaluate oneself by reflecting on one's practice is crucial for the teaching profession. (Turner-Bisset, 1999)

This category may include teachers' own teaching philosophies, teaching styles, their view of weak and strong points, experiences and philosophies. (Lin, 2010) In short, it is teachers' awareness of themselves as language teachers.

In short, teachers must be aware of themselves in their profession. They must accurately evaluate themselves about how they teach L2, how they approach students, how they deal with other teaching related issues and so on. This is possible by having knowledge of self.

## Table 2

Overview of knowledge categories and their possible contents

## Content knowledge

-vocabulary
-grammar
-phonology
-pragmatics
-morphology
-target culture
- discourse

-teaching skills

- time management

-giving instructions

-testing and assessment

-materials development

- planning the lessons

-designing the syllabus

- time constraints

-materials

-evaluating the curriculum

-designing the curriculum

-classroom management

-telling the aim of the task

-approaches of learning and teaching

-strategies of learning and teaching

## General pedagogical knowledge

Curriculum knowledge

Pedagogical content knowledge

-teaching the 4 skills
-integration of skills
- communicative language teaching
-teaching pronunciation
-teaching vocabulary

-teaching language structure

-teaching methodology

-SLA theories

-language teaching methods and techniques

Knowledge of learners

-learning styles /preferences

- background

- motivation

- age characteristics
- goals/interests/need/ abilities

-difficulties

-their needs

-their strengths/ weaknesses

-L1

-different cultures

Knowledge of context

Knowledge of educational ends

Knowledge of self

-Goals/ mission of the school, -physical resources available -teachers /learners -sociolinguistics -discourse analysis -intercultural communication -EAP/ESP -Importance of teaching English

-self-reflection

-self-image

- --teachers own philosophy of teaching
- teachers' styles
- past experiences
- -self-efficacy

#### Models of knowledge base

Models of KB must be explained clearly to thoroughly grasp teacher knowledge base . Teachers use different models to work with their knowledge base. As it is not enough to have knowledge of the domains of KB, one also needs to have an understanding of different models that shape teachers' knowledge base. (Fandino, 2013)

Shulman (1987) has "*pedagogical reasoning and action model*". It makes a connection between teacher knowledge and what they do in class. The cycle that the model introduces has six stages, namely, "*comprehension, instruction, evaluation, reflection, new comprehension and transformation*".

Calderhead (1988) introduces teachers' *professional learning model*. The model emphasizes four components, namely, "practical knowledge", "academic knowledge", "metacognitive processes" as well as "conceptions of learning to teach". While teachers gather practical knowledge from their own practices in class, they get their academic knowledge at teacher education programs. Therefore, the former is action-related whereas the latter is theory-based. By the help of metacognitive processes, teachers can use their functional knowledge for actual teaching. Finally, teachers' conceptions of 'learning to teach' affect their KB.

Wallace (1991) presents some models explaining how student teachers get ready to become teachers. They are called "the craft model", "the applied science model", "the reflective model". Some future teachers imitate what experienced teachers do in class. They greatly get help from their experienced teachers by observing them. The second model is related to how to apply theories of scholars. Thus, it emphasizes the importance of theory. Finally, the last model focuses on how teachers reflect on their knowledge and practice.

Freeman (1991) constructs the interteaching model, which consists of three categories, namely, "*teaching as doing*", "*teaching as thinking*" and "*teaching as knowing what to do*".

The first one focuses on developing skills by the craft model. The second one takes into consideration the applied science model while the last one focuses on interpretation, decision making and reflection.

Day (1993) examines SLTE programs and their implementation of KB. He proposes four models, namely, "the apprentice-expert model", "the rationalist model", "the case studies model" and "the integrative model". In the first one, future teacher benefits from an expert teacher by observation. In the second one, scientific knowledge is given and learners use it in actual practices. The third model analyzes case histories and makes generalizations about some particular behaviors so as to understand the discipline well. The integrative model of SLTE integrates pedagogical knowledge, PCK, CK and support knowledge making use of reflective experiences as well as activities. Thus, the model emphasizes reflective thinking, which encourages learners to deliberately try new methods and evaluate their own practices.

Meanwhile, Manoucheri (2002) suggests that socialization and social interaction are the key elements for developing professional KB of teachers. Entering an educational setting necessitates to learn the culture of that setting including attitudes and practices. The process may influence the professional development of teachers. He argues that student teachers will greatly benefit from communication and collaboration in order to fully understand their profession.

Later, Ohata (2007) focused on giving teachers options to teach by making them selfawareness reflect on teaching. Teachers need to question how and why their experiences in the past and belief systems affect their implication in class. Therefore, teaching is seen dynamic and it is highly affected by reflection. Reflection gives us a chance to learn about teachers' own individual experiences. Effective teachers can make a connection between their experience and theoretical knowledge by reflecting. (Knezevic & Scholl, 1996). Teachers are engaged in Professional activities by self-awareness and reflection. To sum up, various proposals have been made related to teacher knowledge base. As Fandino (2013) concludes, such different approaches expect language teachers to have an integrated and well organized knowledge base including language content, teaching, learning, students and context by constantly evaluating oneself.

	Shulman (1986, 1987)	The pedagogical reasoning and action model.
	Calderhead (1988)	The teachers' professional learning model.
		The craft model, the applied science model and the reflective model,
	Wallace (1991)	which consist of pre-training, professional education or development,
		and professional competence.
Freeman (1991)	Erooman (1001)	The interteaching model which emerges from a gradual progress of
	(1771)	teaching as doing, teaching as thinking and teaching as knowing.
Day (1993)	Day (1993)	The apprentice-expert model, the rationalist model, the case studies
		model and the integrative model, which includes a reflective practice
	component.	
Models of knowledge	Manouchebri (2007)	A cultural model to understand a student teacher's entrance to any
base for L2 teachers		educational setting.
Ohata (2007)	0hata (2007)	A self-awareness and reflection model to acknowledge teachers' practical
	premises and examine teachers' professional development.	

Figure 2 Models of knowledge base for L2 teachers.(Fandino, 2013, p.91)

#### **Construction of knowledge base**

As Alvarez (2009) states, teachers construct knowledge base continuously and one needs to understand the sources that may shape the knowledge of the teachers. There may be a number of various sources affecting the knowledge of the teachers. Identifying such sources will help comprehend teacher knowledge better. Although classifying teacher knowledge sources may not be easy as they may sometimes overlap, making such classifications helps one study the sources in detail.

Lortie (1965) comments that we all observe a number of teachers when we are students and this teaches us a lot about what they do while teaching. Therefore, one needs to investigate how our previous teachers affect our teaching practices. While dealing with the sources of knowledge, one needs to ask about the participants' previous teachers whom they saw as role models when they were students According to Shulman (1987) the sources for teaching KB are:

1. Knowledge students get from different content disciplines

2. Different materials and structures such as coursebooks, syllabus, management of schools and the structure of being a teacher.

3. Related studies about how one teaches and learns.

4. "The wisdom of practice"

Experience is thought to be a crucial element affecting teacher knowledge. This means that teaching practice is highly affected by the experience of the teachers. (Verloop at al. 2001, Hegarty, 2000). Watzke (2007) also indicates that experience is highly effective in the development of PCK of L2 teachers. He puts forth that language teachers improve their pedagogical content knowledge as they get more experienced in their professions.

The source of knowledge of grammar is investigated in some studies. For instance, Johnston and Goettsch (2000) explored how teacher knowledge, specifically knowledge of grammar is shaped. They concluded that it is mainly shaped by two sources: education and experience. Teachers' educational background covers the all grammar courses they took. The participants mentioned other knowledge sources as well. Two internal sources were constructing a knowledge database and dealing with the process of KB. For building a database of knowledge, teachers think of their different mental processes related to dealing with knowledge. While working with knowledge, they need to deal with the issue holistically and be aware that it is a complex phenomenon. One external source was making use of external resources such as coursebooks or reference books and asking for assistance from their colleagues and L2 native speakers. They also conclude that categories of teacher knowledge are difficult to separate and teachers' classroom behaviours give us hints about how different they are shaped.

In his qualitative study about the investigation of exploring foreign language teachers' knowledge base, Jansem (2014) investigates EFL teachers' knowledge base which is performed while teaching, how they perceive their knowledge base in their classes and how they think they have constructed their KB. Related to knowledge construction, the findings indicate that teacher education programs, additional learning experience and teaching are viewed as main sources of teachers' knowledge base formation.

Some studies explore providers of knowledge types separately. When the sources of CK are investigated, it is concluded that TE programs are not the main providers of CK. Teachers mostly get that kind of knowledge in their classroom practices. (Freeman & Johnson, 1998; Johnson, 1996).

Teachers may have gained their PCK from different sources. For Mullock (2006), the origins of PCK of four language teachers are pre-service education, training they get while in the profession, their experiences in the profession and finally what they do to improve themselves as teachers. In her study, initial teacher training and CELTA were seen as the primary source of PCK by the teachers.

Teachers' practical knowledge may be influenced by a number of different sources. Arioğul (2007) explores foreign language teachers' practical knowledge and puts forth that their practical knowledge is affected mainly by how they learned a foreign language, about what they experienced while teaching and what kind of studies they have been involved with since they were ELT students

Teachers' knowledge base sources are sometimes explored in general. Valencia (2009) studied five in-service teachers' KB construction and its components by the help of journals and interviews. The findings indicated that life experience and educational process affected teachers' knowledge base.

In Abdelhafez's study (2010) it was revealed that teachers' professional practical knowledge was shaped by the following: what they experienced, SLTE, feedback from others, what professional activities they are involved with in the profession, views of other much more experienced colleagues in the field, students' reactions and what they did as postgraduate fellows.

Lin (2010) also summarizes the main factors that develop teacher knowledge as what a person experienced as a pupil, as a future teacher, as a teacher and as a colleague. Then, experience is the sources of TK.

In the study of Yazdanpanah (2010) knowledge types are listed as "knowledge of self, students, the nature of language and language learning, of teaching and learning objectives and of teaching resources". She found out that the sources of "knowledge of self" are teacher training, being connected with colleagues, experience of teaching and life history. The sources of "knowledge of students" are the teacher, self, group and teacher identity. Related to "the nature of language", experience with language is the source. "Knowledge of the nature of language learning" comes from related experience. "Knowledge of teaching and learning objectives" comes from syllabus objectives, L2 and learners, "Knowledge of teaching resources" from objectives, sources used to create or find a material, characteristics of the material and knowledge of the self.

All teachers were once students and what they experienced as students affects their actual practices in class. As Golombek (1998) mentioned, a teacher may have had a negative learning experience when as a student she was constantly corrected because of grammatical mistakes. However, this experience turned into a positive strategy as she chose not to make the same mistake as her previous language teacher. However, some teachers may prefer not to change how they were given instruction in the past, i.e., their learning experiences directed them to teach in that similar manner. (Freeman, 1991) Demirel (2003) also indicates the

importance of observation for language teachers. He believes that how to teach is learned by observing others carefully.

Thus, one may conclude that there are a number of sources developing TK. Among these various sources are experience of teaching, previous experiences as learners, teacher training, self-study or other external resources. Investigating the sources may also facilitate teacher knowledge.

# The sources of teachers' KB are then investigated by various researchers:

# Table 3

# Sources of teacher knowledge base

Sources of teacher KB overview	
Jamsem (2014) EFL teachers' KB	Teacher education programs Additional learning experience Teaching
Arıoğul (2007) Teachers' practical knowledge	Teachers' previous language learning experiences Previous teaching experiences Pre-service and in-service programs
Valencia (2009) Knowledge base	Life experience Educational Process
Abdelhafez (2010) Professional practical knowledge	Experiences Education of teachers Studies at departments of universities Help from other student or peers In-service training Suggestions from more experienced colleagues What learners yield Studies after graduation
Lİn (2010) Teacher knowledge	Experience as students Experience as teacher trainees Experience as teachers Experience as colleagues
Yazdanpanah (2011) Self	Teacher training Cooperating with colleagues Experience of teaching Life history
students	The teacher Self Group or teacher identity
language	Experience with language
language learning	Related experience Knowledge of language
Teaching/learning objectives	Syllabus objectives L2 learners
teaching resources	Objectives Sources used to create or find a material Characteristics of the material Knowledge of self

#### Novice and experienced teachers

It is pivotal to clarify novice and experienced teachers. However, as Farrell (2012) mentions, we cannot find an exact definition of a novice teacher in literature. One cannot exactly say when teachers cease being called novice in terms of time of teaching. Some studies indicate that this teaching time may be from 1 year to 5 years. Novice teachers may also be called beginning teachers in literature. Meanwhile, Yazdanpanah (2011) states that experienced teachers have 4 to 5 years of experience.

Some studies compare and contrast these groups in general teacher education. However, one cannot find so many comparative studies especially in SLTE. Teachers having enough experience are often considered to possess some common characteristics. Yazdanpanah (2011) summarizes that their knowledge of how to teach is great. They are knowledgeable about the social context they work in. They use many teaching methods and they can also easily deal with unexpected situations while teaching.

Veenman (1984) studied the perceived problems of beginning teachers. He concluded that teachers had some problems in practices not due to their inadequate content or PCK but because of their inadequate knowledge of their learners and the contexts of education. The researcher argued that they had a variety of problems which may stem from their different personalities, background of education or different contexts of education. He listed eight perceived problems of beginning teachers, namely, disciplining the class, motivating learners, coping with individual differences, assessment, parental issues, organization, lack of sources, coping with each student's problems. These were what they most had difficulty dealing with in their professions.

Expertise in language teaching is not a deeply explored research field. Nevertheless, Tsui (2003) lists characteristics of experienced teachers: (p.245)

• Having adequate knowledge base for a language teacher.

- Being able to integrate and use of various categories
- Making use of previous experiences to make decisions
- Being willing to study and deal with various teaching problems
- Having better skills with students
- Considering instructional objectives
- Using language learning strategies better
- Knowing how to adapt to the specific learning context
- Being flexible and having reached automaticity while teaching.

Similarly, Breen et al. (2001) state that in spite of individual differences among experienced teachers, they have a common stock of knowledge and actions. The knowledge categories they apply and classroom implementations always interact while they are teaching.

Erdoğan (2005) reviews articles about the cognitions of experienced teachers and summarizes that those EFL/ESL teachers are good at making use of their implementations. They have complicated decision-making processes. They decide considering the curriculum, their students as well as the instructional materials they make use of. (Smith, 1996; Burns, 1996; Breen 1991). Their practices may be consistent with their beliefs (Johnson 1992, Smith 1996), but that may not always be the case. (Burns, 1996; Ulichny, 1996; Borg, 1998) Although they have things in common, some important individual differences are observed. They have their own learning theories and their personality may be highly affected by their personal theories

For some, the two groups differ greatly. Berliner (1987) believes that experienced group consider expected problems and solutions. Therefore, they behave different from novices while teaching in class. Meanwhile, novice teachers know less about their field, teaching strategies and contexts of teaching. Therefore, they may have inadequate "mental scripts and behavioral routines" (p. 72).

Sometimes there are gaps between novice teachers' previous learning about the theory and putting this theory into practice. What they learned in teacher training programs may be difficult for them to put into practice. Popko (2005) studied how L2 novice teachers use their knowledge they acquired in pre-service education when they become teachers. It was seen that when teaching grammar, they did not often apply to theoretical knowledge they had gained previously.

In a study about novice teachers' grammatical knowledge, Cajkler and Hislam (2002) examined ten novice teachers' knowledge of grammar and concluded that participants involved believed that they lacked knowledge needed to teach what they are required to. This could imply that some novices may find parts of their teacher knowledge insufficient.

Clandinin (1989) gives importance to experience and finds experienced teachers' knowledge practical and experiential. Experienced teachers take into consideration their aims and values whenever they perform the act of teaching.

So as to compare the instructional planning approaches of these teachers, Richards, Li and Tang (1998) conducted a study and found out that inexperienced ones were not as efficient as experienced teachers in terms of

a) taking into consideration the content considering how their learners view it.

b) being competent in subject matter

c) being knowledgeable about how to teach the content and

d) integrating L2 with some other curricular goals.

In terms of the views of the context, experienced teachers are mostly regarded as being able to understand the context including their students. Calderhead (1983) also supports the idea that even before they start teaching, experienced teachers somehow understand their students' knowledge, skills, needs, attitudes, problems, and abilities. This means that those experienced teachers can easily understand their students' specific differences including varied abilities knowledge types in the first few days. Therefore, as Yazdanpanah (2011) mentions, they can easily predict the difficulties the student will have to cope with. In addition, she argues that while experienced teachers focus more on their students, inexperienced teachers focus on themselves rather and how students react to them. Then, inexperienced teachers are more interested in themselves rather than their students. For them, students' reactions greatly matters as they may take things personally.

Apart from that, novice and experienced teachers' views about what to focus on related to their students differ. In his study about the PK of novice and experienced ESL teaching staff, Gatbonton (2008) observed that experienced teachers gave more importance to the classroom behavior of their students while inexperienced teachers chose to establish close relationships with learners valuing their feelings.

In terms of how they deal with problematic situations, some differences may be observed in terms of years of experience. Lange and Burroughs-Lange (1994) argue that experienced teachers may choose to postpone dealing with problematic situations so that they will have more time to study the problem. Other strategies they use for dealing with a problem may be trying to understand the problem by viewing it from different angles, trial and error, considering past experiences, training or getting help from other sources. However, these strategies are not adopted by many novices.

Novice teachers may have some problems related to context. According to Pennington & Richards (1997) novice teachers were highly influenced by contextual factors. Among the contextual constraints they mentioned were too many students in the same class, students who are not easy to motivate, exams, problems related to syllabus, experienced teachers' reactions to them, their learners' proficiency level, their being reluctant to learn in other ways than they are used to learning and too much work to do for their jobs Similarly, Tsui (2003) found out a number of differences. It was revealed that those who had more experience had a richer KB considering language itself, how to teach it, curriculum and students. Apart from that, unlike teachers who had more experience in their occupations, novice teachers were found to be in need of pedagogical routines, that is, they did not know what to do when something unexpected happened in class. Then, experienced teachers were more successful at helping their learners focus on form when necessary.

In terms of the making pedagogical decisions, Mackey, Polio & McDonough (2004) believe that experienced teachers can easily adopt their lesson and handle unexpected pedagogical situations whereas less experienced teachers usually choose not to diverge from their lesson plans even when necessary. Similarly, they found out that experienced teachers could easily help their students focus on linguistic forms when they see or hear "non target-like" production in grammar instruction. However, less experienced teachers directed their students to semantically deal with their productions.

In terms of presenting language, some differences were seen between novices and experienced teachers. For teaching vocabulary, Gatbonton (2008) pointed out that experienced teachers usually elicited vocabulary items using a number of methods including illustrations, writing on the board and asking learners to infer what a word means by the use of contextual clues. However, inexperienced teachers mostly preferred to give explanations and instructions.

Grammar presentation was also different. Johnson and Goettsch (2000) observed that experienced teachers chose not to give explanations for grammar but make use of contextualized language. They also encouraged students to make connections and to engage in speaking activities. This also corresponds with communicative language teaching. In CLT contextualization is emphasized and grammar is not taught in isolation. In terms of attitudes related to control, Watzke (2007) found out that teachers' attitudes towards control changed with experience. Compared to inexperienced teachers, experienced teachers chose to not to focus too much on control in their classes. Instead, they encouraged task performance and communication more. This may be related to self-esteem. Apart from that, when responding to student affect, they chose to support language-oriented outcomes.

Experienced teachers may have some common teaching methods. Yazdanpanah (2011) summarizes the main teaching methods of experienced EFL teachers. She concludes that they have two teaching methods. The first one is that they contextualize their lessons and emphasize comprehensible language input. Second, by involving their students in the lesson such as asking them to give examples or to make explanations, the teachers decide whether the students have understood or not by the students' output. They therefore take students' output into consideration for the evaluation of the success of the lesson.

In her study about instructional thoughts and practices of experienced foreign language teachers and future teachers, Akyel (1997) discovered that experienced teachers had some commonalities. For instance, they were mostly interested in whether their students understood the lessons. They considered how they can put their students on the right track by involving them mentally, emotionally or physically by catching their attention. They checked student comprehension by observing whether students used the language meaningfully or not. Using language in meaningful contexts is also in line with CLT. One may conclude easily that teachers highly emphasized student output and feedback. However, they had no concern about not being able to control instructional goals determined beforehand.

In order to understand novices, some studies of prospective teachers may help us. For instance, Cesur (2012) examined the competencies of prospective ELT teachers considering their PCK by the MM "sequential explanatory design". Findings revealed that prospective

teachers found themselves competent in a number of domains while their necessary knowledge of the English language was missing. However, there were inconsistencies between their perceived capabilities and their actual performances in class about "knowledge of lesson planning", "knowledge of learners" as well as "knowledge of assessment". Finally, it was concluded in the study that what shaped their knowledge domain was both experiences and the pre-service TE they completed.

Şahin (2006) investigated L2 teachers' pedagogical and content knowledge making use of questionnaires and interviews. Data put forth that those teachers in public schools were good at theories of learning and teaching, assessment, linguistics, motivating and managing their learners. In other words, teachers of language working at public schools found themselves competent in different theories related to education, different assessment types and dealing with learners. In terms of content knowledge, they found themselves good at linguistics.

Spada and Massey (1992) examined the relation between novices' pedagogical knowledge and their classroom practices. They found out that because of contextual factors, they were not able to put their knowledge into practice. Then, they were limited by contextual constraints. Having pedagogical knowledge was not enough to teach successfully in class.

Köyalan (2004) investigated language instructors' teaching efficacy and how successfully they deal with setbacks in class quantitatively. One of the conclusions made is that the more experienced language instructors become, the better they are at coping with disruptive classroom behaviours. Classroom management skills may improve as teachers get more experienced in their professions.

It is natural to find contrasts between practicing and novice teachers' priority in knowledge types as well as their different sources of knowledge. Luo (2004) studies knowledge for teaching elementary level English in foreign language contexts and how such kind of knowledge is constructed by practicing as well as pre-service teachers. Results indicate that practicing teachers value experiential knowledge whereas pre-service teachers focus on how theoretical knowledge is put into practice. Therefore, the source of experienced teachers' PCK was experience while it was teacher education for novice teachers.

People have some expectations from experienced teachers. Experienced teachers have important roles for the others especially for future teachers. Yazdanpanah (2011) stresses their role commenting that student-teachers hope to be like them one day. Thus, they need to be competent in a number of knowledge domains in order to be good role models for teacher candidates.

In some research studies, it was found out that teacher knowledge may not grow with experience. For instance, Asl, Asl and Asl (2014) investigated content and PCK of 115 EFL teachers in two countries using multiple choice questions. The results showed that many teachers did not have enough CK and PCK. It was also seen that their knowledge decreased as they continued teaching. However, this finding may be not supported with related ESL studies.

Meanwhile, being experienced cannot meaning being an expert one all the time. However, experience is considered to be the most significant identification of being an expert teacher. (Gage & Berliner, 1998). Apart from that, Mullock (203) indicates that reputation and classroom performance are some of the prerequisites to become experts.

In sum, it may be concluded that similarities and differences exist between the groups especially about teaching methods, dealing with problematic situations, attitudes towards students...etc.

#### **Teacher practices**

According to Richards (2004) teaching methodology or practice is "the activities, tasks, and learning experiences used by the teacher within the teaching and learning process" (p. 167). Teacher knowledge and practice are closely related. A number of researchers are also in the opinion that teachers' practices in class are influenced by their knowledge. (Johnston & Goettsch, 2000; Gatbonton, 1999; Mullock, 2006; Abdelhafez, 2010) Thus, studying classroom activities of teachers by observing them or by dealing with their perceptions may give one significant clues about their knowledge bases.

It is not easy to comprehend teachers' actions as it is a very complicated issue. The examination of teachers' "practical theories" (Elbaz, 1983) helps us understand the issue better. Their theories are influenced by their own values, beliefs, teaching contexts. Therefore, what teachers do in class is open to interpretation and this practical knowledge is restructured in different working contexts considering the students, topic, time and place of teaching. (Johnson& Freeman, 2001) It may be hard to judge their practices objectively as different variables affect how they act in class and they change their practices depending on the specific context.

Golombek (1998) believes that teacher knowledge may act as a framework which teachers may benefit from while teaching. In her study about teachers' *personal practical knowledge*, she revealed that language teachers' this type of knowledge affects and is affected by how they teach.

Teacher knowledge bases affect how teachers behave in class. Hegarty (2000) examines teachers' classroom behavior, especially the teaching moment. According to the researcher, there are a number of insights in the practical behavior of the teachers. In his schematic model, the insights include theory, research, pedagogic knowledge, other knowledge, subject knowledge, experience and skills. The model implies that existing KB

influences "classroom behavior". Teachers make use of their existing repertoire of knowledge. They internalize their existing knowledge into tacit knowledge. Therefore, such a model could help one understand how the teacher uses his/her knowledge in class. In addition, Hiebert et al (2002) see teacher knowledge as practically-oriented because they believe that knowledge comes from practice and also affects practice.

Apart from that, classroom decision making may be an indicator of how knowledge and practice interact. In his study about personal practical knowledge of language teachers, Tsang (2004) found out that this knowledge informed most of their decisions they made while teaching as well as some of the decisions they made after teaching.

Meanwhile, another important point is that sometimes teachers prefer not to use their knowledge. They may intentionally choose to do so or they may not know how to implement it. (Verloop et al., 2001) indicate. In addition, sometimes teachers' knowledge and their instructional practices vary greatly. Sometimes teachers have necessary knowledge; however, they may not be able to implement it in their classes. (Tantani, 2012)

#### **Professional development**

Teachers' learning is a life-long advancement. They participate in a number of social contexts before and after they become teachers. They may have attended different contexts as learners, as teachers or colleagues. They need to improve themselves professionally.

Professional development is closely linked to the study of KB. Firstly, "teacher training" and "teacher development" terms must be stated. Richards & Farrell (2005) indicate that these are different terms. Training involves those activities that have goals for the near future while professional development has goals for more distant future. Training is the first step for a teaching position whereas development further improves teachers' way of teaching or themselves as teachers. Training involves learning main concepts and principles for

teaching, benefitting from mentors or peers by supervision and feedback. However, development involves teachers' reflections of their practices considering various dimensions.

Shulman & Shulman (2004) suggest a conceptual framework in order to conceptualize teacher development and learning. Their theory consists of a number of elements and teacher learning features should be "Vision, Motivation, Understanding, Practice, Reflection and Community". (p.259). First, an accomplished teacher should have readiness for teaching and must have an adequate vision of teaching and learning determining their readiness to learn FCL ('Fostering a Community of Learners Approaches') This new vision may be developed by different role models, studying cases, examining tapes, having dialogues with peers... etc. Second, the teacher should be willing to change in the required direction and sufficiently motivated to do so taking advantage of his/ her contexts or peers. Third, the accomplished teacher must both know and be able to do. S/he should be capable of transforming the vision and conception into action in addition to knowing a number of points. Fourth, the teacher should be skilled in performing the appropriate kind of teaching. Then, issues such as how teachers design and adapt the curriculum, how they manage different rotations in class, how they assess diverse students, how they use technology in their classes are of great importance. Fifth, the teacher should know the importance of learning from his/her own as well as from one another's experience, where critical reflection comes into play. Sixth, teachers can learn and develop in a wide context of community, institution, polity, as well as profession.

Teachers should all benefit from ways of professional development so as to become autonomous, be critical about their teaching and update their knowledge. Thus, they can become reflective practitioners.

Eksi (2010) investigated how L2 instructors perceive their own professional development needs. The findings were also related to different variables such as years of teaching, their workload, where they graduated from... etc. The findings revealed that

instructors were in favor of PD activities. They mostly preferred to talk with their colleagues about what they experienced. They found "writing" not easy to teach. They lacked knowledge about "new theories and practices of ELT". Another finding was that experienced instructors indicated that they needed less PD support.

In a similar context to our current study, Yurtsever (2013) investigated ELT instructors' beliefs related to professional development models. Instructors' teaching skills are aimed to be developed by means of in-service training programs at universities. Among different professional development models, four of them were selected, namely, "training, mentoring, peer-coaching and self-directed" models. The findings indicated that language instructors preferred both traditional and constructivist models. Meanwhile, the teachers preferred self-directed model most. The researcher suggested that instructors should themselves have the roles of initiators, developers and observers of their own professional development programs should firstly consider teachers' needs. In addition to that, instructors should be given the opportunity to adjust their professional development activities themselves such as choosing whom to collaborate with or how to evaluate their own teaching practices. The study suggests that ELT instructors should more take the control of their own professional development activities.

Similarly, Ekşi and Capa-Aydın (2012) examined the PD needs of ELT instructors using a questionnaire. The findings revealed that instructors needed support for current trends in language teaching and for technology while teaching English. Meanwhile, they did not need much help for planning their lessons or for managing their classes. In addition, it was found out that the more experienced teachers became, the less support they needed in terms of professional development.

Action research (Wallace, 1998), The reflective teaching movement (Schön, 1983), Post-method pedagogy (Kumaravadivelu, 1994) are all included in PD activities. In order to learn from their own practices, teachers must constantly critically analyze their classroom practices and at the same time be involved in a variety of PD activities. Finally, they must be autonomous reflective practitioners by being involved in PD activities of appropriate types depending on their specific context.

In sum, related research literature was reviewed in order to give necessary information for teacher cognition, teacher knowledge, knowledge base categories, construction of knowledge, novice and experienced instructors, teacher practices and PD in this chapter.

#### **Chapter III: Methodology**

### Introduction

First of all, research design is thoroughly explained. The chapter goes on with explanation of participants. Then data collection techniques, instruments and analysis are mentioned. Finally, trustworthiness is mentioned.

#### **Research Design**

As is well known, research is a systematic investigation by collecting, analyzing and interpreting data and it is highly affected by the theoretical framework adopted. This framework shows the way to study knowledge. It is also called as paradigm. It is a result of views of ontology and epistemology. The way a person gives meaning to reality and knowledge determines how that person tries to find answers to questions in a study.

For "interpretivist paradigm", the mission is to interpret social reality applying to others in the study. Constructivism means understanding the person' giving meaning individually .According to constructivists, the mind is always active, tests and retests different hypotheses. When we look at ontology, it is seen that reality is multiple and is constructed differently by different instructors depending on the meaning they make of the world. Nature of knowledge (epistemology) is transactional and subjectivist. Findings become significant if participants' accounts of their reality converge. Methodology is hermeneutic, which means to ensure interpretations are correct, information is given back to ones involved.

### Table 4

Some paradigms, main methods used and data gathering instruments (adapted from Mackenzie, Knipe, 2006)

Paradigm	Main methods used	Data gathering tools	
"Positivist/ Postpositivist"	"Quantitative"	"Experiments"	
		"Quasi-experiments"	
		"Tests"	
		"Scales"	
"Interpretivist/Constructivist"	"Qualitative" (predominantly)	"Interviews"	
		"Observations"	
		"Document reviews"	
"Transformative"	"Qualitative methods" along	A variety of tools	
	with "quantitative and mixed methods"		
"Pragmatic"	Research questions determine	Instruments may be from	
	them	positivist or interpretivist paradigms.	

Creswell (2003) indicates that research consists of three different methods: quantitative, qualitative and mixed methods of design. Quantitative method studies statistical data. As for qualitative strategies, they make use of 'narratives', 'phenomenologies', 'ethnographies' or 'case studies'. Finally, MM combines both.

## Table 5

# Characteristics of quan, qual and MM research (From Johnson & Christensen, 2014)

	Quantitative Research	Mixed Research	Qualitative Research
Scientific method	Confirmatory or "top-down" — the researcher <i>tests</i> hypotheses and theory with data.	Confirmatory and exploratory	Exploratory or "bottom-up"—The researcher generates or constructs knowledge, hypotheses, and grounded theory from data collected during fieldwork.
Ontology (i.e., nature of reality/ truth)	Objective, material, structural, agreed-upon	Pluralism; appreciation of objective, subjective, and intersubjective realities and their interrelations	Subjective, mental, personal, and constructed
Epistemology (i.e., theory of knowledge)	Scientific realism; search for Truth; justification by empirical confirmation of hypotheses; universal scientific standards	Dialectical pragmatism; pragmatic justification (what works for whom in specific contexts); mixture of universal (e.g., <i>always</i> be ethical) and community-specific needs-based standards	Relativism; individual and group justification; varying standards
View of human thought and behavior	Regular and predictable	Dynamic, complex, and partially predictable— multiple influences include environment/ nurture, biology/nature, freewill/agency, and chance/fortuity.	Situational, social, contextual, personal, and unpredictable
Most common research objectives	Quantitative/numerical description, causal explanation, and prediction	Multiple objectives; provide complex and fuller explanation and understanding; understand multiple perspectives	Qualitative/subjective description, empathetic understanding, and exploration
Interest	Identify general scientific laws; inform national policy.	Connect theory and practice; understand multiple causation, nomothetic (i.e., general) causation, and idiographic (i.e., particular, individual) causation; connect national and local interests and policy.	Understand and appreciate particular groups and individuals; inform local policy.
"Focus"	Narrow-angle lens, testing specific hypotheses	Multilens focus	Wide-angle and "deep-angle" lens, examining the breadth and depth of phenomena to learn more about them
Nature of observation	Study behavior under controlled conditions; isolate the causal effect of single variables.	Study multiple contexts, perspectives, or conditions; study multiple factors as they operate together.	Study groups and individuals in natural settings; attempt to understand insiders' views, meanings, and perspectives.

	Quantitative Research	Mixed Research	Qualitative Research
Form of data collected	Collect quantitative data based on precise measurement using structured and validated data- collection instruments.	Collect multiple kinds of data.	Collect qualitative data such as in-depth interviews, participant observations, field notes, and open-ended questions. The researcher is the primary data-collection instrument.
Nature of data	Variables	Mixture of variables, words, categories, and images	Words, images, categories
Data analysis	Identify statistical relationships among variables.	Quantitative and qualitative analysis used separately and in combination.	Use descriptive data; search for patterns, themes, and holistic features; and appreciate difference/variation.
Results	Generalizable findings providing representation of objective outsider viewpoint of populations	Provision of "subjective insider" and "objective outsider" viewpoints; presentation and integration of multiple dimensions and perspectives	Particularistic findings; provision of insider viewpoints
Form of final report	Formal statistical report (e.g., with correlations, comparisons of means, and reporting of statistical significance of findings)	Mixture of numbers and narrative	Less formal narrative report with contextual description and direct quotations from research participants

The cyclical research process suggested by Mackenzie and Knipe (2006) includes some steps. These may be listed in order but one can go back to previous steps or jump to next steps during the process. The steps include beginning with a suitable paradigm for the research, deciding on the specific area to study, deciding on the approach such as experimental study, action research or case study, reviewing literature, choosing types of data, that is, qualitative, quantitative or mixed, deciding on data gathering tools such as interviews, observations, document analysis.. and so on, making timeline, deciding on the person to gather data, getting ethical approval, collecting data, analyzing the results and presenting findings, conclusion and discussion.

Episemology and ontology are important concepts in a research study. Teddlie & Tashakkori, (2009, p. 89) define epistemology as "the relationship between the knower and known (the researcher and the participant)" whereas ontology means "the form and nature of reality" (Guba & Lincoln, 2004, p. 21).

Research aims to understand multiple constructions of meaning by teachers. Teachers also share their experiences, which is relative. Therefore, there is no one reality but a number of realities. As teachers' knowledge is constructed differently by different individuals

As there is no one single reality, different perspectives are taken into account. The individual is always active, testing and retesting hypotheses. People try to understand the world. As a researcher adopting social constructivism, one does not start with a theory, but rather considers participants' opinions. We aim to investigate various understandings of knowledge and the sources of knowledge. A teacher' reality is different from another teachers' reality. These multiple realities can be explained by relativist ontology.

In addition, considering the complexity of the world we live in, one needs to study a complex phenomena thoroughly making use of some sophisticated approaches. In this study a MM design is adopted. For Johnson et al. (2007) it is "the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches for the broad purposes of breadth and depth of understanding and corroboration" (p.23).

It is not easy to describe different mixed methods designs. Most common ways to organize them are related to the sequence and power.. Johnson and Christensen (2004, p.418) use the following symbols:

The letters *qual* or *QUAL* stand for qualitative research. The letters *quan* or *QUAN* stand for quantitative research. Capital letters denote priority or increased weight or a core role in the study. Lowercase letters denote lower priority or weight or supplemental role in the study.

A plus sign (+) represents a concurrent collection of data. An arrow  $(\rightarrow)$  represents a sequential collection of data. Dörnyei (2007, p.169) lists 9 different combinations for mixed method studies:

- "QUAL + QUAN"
- "QUAL + quan"
- "QUAN + qual"
- "QUAL  $\rightarrow$  QUAN"
- "QUAN  $\rightarrow$  QUAL"
- "QUAL $\rightarrow$  quan"
- "qual  $\rightarrow$  QUAN"
- "QUAN  $\rightarrow$  qual"
- "quan  $\rightarrow$  QUAL"

Johnson & Christensen (2014) indicate that generally one method is dominant in a MM study. They use two different terms for such design. *Qualitatively driven design* is one where qualitative method is given more emphasis but data are also gathered quantitatively for the study. *Quantitatively driven design* is one where qualitative method is given more emphasis but data are also gathered qualitatively for the study.

Our research design is qualitatively driven mixed method so different data gathering tools are used to gather data. Here one has a chance to complement quantitative data with qualitative data or vise verse. Rather than relying on one type of data, one can benefit from other methods as well, that is, quantitative (questionnaire) and qualitative methods (interviews) are chosen. The questionnaire is analyzed statistically while semi structured interviews are analyzed using "content analysis". In this way, a comprehensive understanding will be possible by the help of participants who gave genuine and detailed answers.

According to Tashakkori & Creswell (2007) MM is a kind of study where the researcher, using both methods, makes analysis, integrates the results and makes inferences.

Creswell (2007) states that qualitative method makes use of approaches including "*narrative research*", "*phenomenology*", "*grounded theory*", "*ethnography*" and "*case study*". Our theoretical framework determines which approach to choose.

Cresswell et all (2003) indicate that when deciding on which design to use in a MM study, one has to consider *timing, weighting, mixing* and *theorizing*. Timing may be concurrent or sequential. Weighting can be equal or one of the methods may be given more emphasis. Mixing may be by integration, connection or one method may be embedded. Cresswell (2014) lists 6 strategies, adapted from Cresswell at al. (2003) They are grouped under 2 groups: sequential designs and concurrent designs.

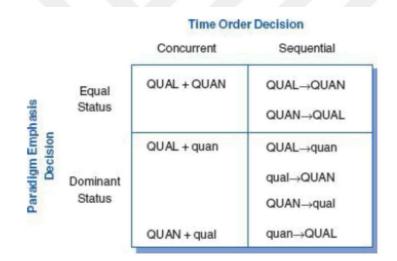


Figure 3. Mixed method designs (from Johnson and Christensen, 2014, p.660)

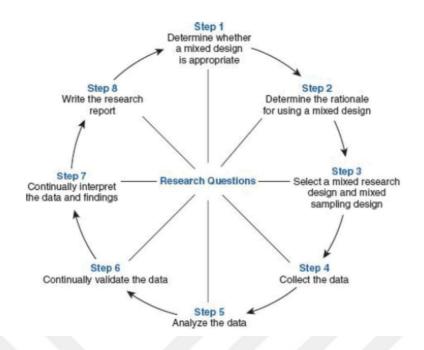


Figure 4. Crucial steps in a MM study design (Johnson & Christensen, 2014, p.663)

Dörnyei (2007) mentions the values of using both methods together. First, he believes that MM research is advantageous as it increases the advantages of one method while it decreases the disadvantages of another method. Second, complex problems can more easily be analyzed using a mixed method design as it is a multi-level analysis. Third, the validity of the study improves when multiple methods are used. This also helps make generalizations. Finally, results could be used for a larger group of people.

The role of the researcher must also be mentioned in the current study. One needs to remember their great role particularly in data gathering and data analysis processes. Cresswell (2007, p.15) indicates that "researchers bring their own worldviews, paradigms, or sets of beliefs to the research project, and these inform the conduct and writing of the qualitative study." (p.15) Therefore, the researcher' active role during the whole study should not be underestimated. The researcher makes use of his/her schemata all the time.

The interview process must be given due importance. There are a number of things the researcher should be careful about. Patton (2002) argues that during the interview, the

interviewer should consider how the interview is going on, what reactions the interviewee gives and how to give appropriate feedback. Such a process could help to improve good relations between the interviewer and those interviewed. (Korkmazgil, 2015) In this way, interviewees will be more eager to share their ideas and feelings with the researcher.

Another important point is that the researcher should have a positive attitude towards t those being interviewed. Different opinions, views, feelings should all be valued and must not be criticized at all. There must be a positive and relaxed atmosphere during the whole interview process. The interviewers must be ensured that whatever they say will not be judged at all in any case.

The researcher has to consider "rapport" and "neutrality". The interviewers should all believe that they are respected and what they say is important. In addition, they must feel that they will not be judged by the researcher for what they comment during the interviews. It is not the aim of the researcher to change the attitudes or beliefs of others.

Apart from that, Patton (2002) argues that control must be in the hands of the researcher. The researcher can have control by being aware of one's aim, preparing appropriate questions so as not to get irrelevant answers, being able to distinguish relevant responses and knowing how to give appropriate feedback to the interviewees. Not focusing on one's aim, using inappropriate questions, not being aware of irrelevant answers, not knowing how to respond to the interviewees causes one to lose control of the process.

In this study such points were constantly taken into consideration. The interviewers were all valued for whom they were, no negative comments were made, questions were paraphrased when necessary and appropriate feedback was frequently given.

#### Setting

The setting highly influences the research study. Therefore, language teaching in our country especially the university setting should be examined. First of all, there is a "Council of Higher Education" (CoHE) and the council has the responsibility to plan, coordinate and govern the system paying regard to the "Turkish Constitution and the Higher Education Laws". Higher education institutions are divided into "Universities", "Institutes of High Technology", "Post Secondary Vocational Schools", "Military Academies" and "Police Academies". Meanwhile, our country has "State" versus "Non-profit Foundation Universities".

Four types of programs exist at universities, namely, "associate's degree", "bachelor's degree", "graduate" and "post graduate programs". The first type lasts for two years. Students who graduated from vocational high schools do not need to take any centralized exams to enter the programs. Bachelor's degree programs usually last for 4 years but some programs may take more than 4 years. Meanwhile, MA or MsC programs last for about 2 years whereas PhD programs last for about 4 years. Finally, there are some post graduate opportunities at universities as well.

While language of instruction is usually Turkish in a number of universities, some other universities determine English, German or French. Meanwhile, in some programs at universities 30% of the courses are given in L2.

If the medium of instruction is Turkish, it means it is not obligatory for them to study foreign language in preparatory classes. However, they may voluntarily enroll in prep classes. If it is English or if %30 of the courses are in L2, then students must take the preparatory class. HEC by laws state that L2 teaching aims to to teach the basic rules of the foreign language, to assist their vocabulary, four skills. Teaching in L2 helps them be competent in L2 for their own fields of study. Students enter a language proficiency exam, which determines whether their language proficiency is enough to pursue their undergraduate or graduate studies at university. The results they get determine whether they are exempted from the preparatory class or not. The exam they enter also determines their level for the classes they will be registered. The Senates of Higher Education institutions make necessary regulations related to how to make students competent and how to assess their levels of proficiency in L2. HEC is responsible for the control of the quality of FLE.

As for the obligatory foreign language courses, students who are firstly enrolled in programs where medium of instruction is Turkish, they need to take these courses unless they are exempted after passing placement/proficiency or the test designed to determine which students should be exempted from the course. They last for at least two semesters. (www.yok.gov.tr)

In Turkey, EFL instructors may be graduates of ELT, "English Language and Literature", "American Culture and Literature", "English Linguistics", and "English Translation and Interpretation".

Table 6

Name of the program	Public university	Private university	Total
English Language Teaching	47	16	63
ELL	44	17	61
Translation and Interpreting (English)	14	14	28
American Culture and Literature	5	3	3
English Linguistics	2	-	2
Translation Studies	1	1	2

#### Related departments for instructors

(OSYM, 2018)

In 2006 ELT Curriculum, courses were divided into 3 categories: Knowledge and Skills of Teaching Profession, General Culture and Content Knowledge. It included 175 hours of instruction and 159 credits.

When the courses they took in the first semester are examined, it may be concluded that they mainly increased their content knowledge especially grammar, reading, writing, listening and pronunciation and vocabulary. They were also introduced to educational sciences. The course named Introduction to Educational Sciences improved student-teachers' general pedagogical knowledge.

In the second semester, mainly content knowledge was emphasized for teacher candidates. Apart from that the course named Educational Psychology improved students' general pedagogical knowledge.

The courses given in the third semester added to CK, GPK and PCK of students in the ELT department. For instance, the course named Teaching Principles and Techniques improved students' general pedagogical knowledge while Approaches in ELT course improved their pedagogical content knowledge.

Students were introduced to ELT methodology in the 4<sup>th</sup> semester. They also learned about instructional technologies and materials development in this semester. These courses improved their PCK greatly. They are of great help to a language teacher.

Students in the fifth semester focused more on how to teach L2 by taking courses such as "Teaching English to Young Learners", "ELT Methodology", "Teaching Language Skills", "Literature and Language Teaching". They also learned how to manage the classroom. They greatly contributed to their PCK and GPK.

In the sixth semester students learned about testing and assessment, which increased their general pedagogical knowledge. Apart from that, PCK continued to increase especially by courses named "Teaching Language Skills II" and "Teaching English to Young Learners II".

In the seventh semester they had a chance to increase their general pedagogical knowledge by "School Experience", "Guidance" and "Special Education". In School Experience course, they observed other English teachers at schools and gave lessons in actual classrooms.

In the last semester students learned about how to deal with testing and assessment issues in ELT. This contributed to their PCK. Apart from that, they had some elective courses in their field. "Contrastive Education" and "Turkish Education System and School Management" added to their general pedagogical knowledge. Finally, they learned about practical issues in Teaching Practice course.

Although the courses mentioned above were compulsory, instructors also had a chance to suggest optional courses for their students. They could also make use of various materials including coursebooks and they could make their own exams. (Yavuz & Zehir Topkaya, 2013)

#### **Participants**

The universe of the study consists of a number of instructors at state universities in Turkey. Different sampling strategies are used in the study. In the quantitative part, random sampling is applied, that is, instructors are selected randomly. Purposive sampling is applied in the qualitative part for selecting both novice and experienced ELT instructors. (Christensen, Johnson & Turner, 2014). Ofo (1994) asserts that it is "a situation in which the researcher simply hand picks the sample because to his (or her) judgment they are typical to what he (or she) wants. In essence, the researcher selects the sample, which simply satisfies his (or her) specific needs" (p. 15).

The instructors are categorized into two subgroups, *novice and experienced* instructors, according to the years of experience. *Novice instructors* are the ones teaching the foreign language for 2 years or less whereas *experienced instructors* are those teaching L2 at least for 5 year. Meanwhile, as it is not possible to include all the English language instructors in Turkey in a single study, a purposive sampling is used. Meanwhile, convenience is also important for the researcher as participants are selected taking into consideration their availability as well as willingness to be a contribute to such a study. (Collins, Onwuegbuzie, & Jiao, 2006) They are from a number of universities. All are nonnative speakers of English. In other words, the researcher does not aim to investigate native English teachers point of view.

#### Data collection techniques and instruments

Data which is collected using a number of sources enhance trustworthiness and thus develop confidence in the findings of the study. (Glesne& Peshkin, 1992) Data collection began in January 2017 and lasted until December 2018.

As it is a MM study, data is collected qualitatively and quantitatively. Data is gathered from a likert scale questionnaire and interviews. They are analyzed quantitatively and qualitatively. As teacher knowledge cannot be directly assessed, elicitation techniques are used. Common data categories are developed by recursive reviews of the data. We also need to make some follow-up interviews for clarifying quantitative data

#### Teacher knowledge questionnaire

For the quantitative part, a questionnaire is used. It is a likert- scale questionnaire. Permission was taken from Yazdanpanah, who gathered the contents of the questionnaire from teacher education programs as they are seen as necessary knowledge base. In her study, data gathered were resolved by exploratory factor analysis so as to put forth the categories of TK of experienced EFL teachers who are teaching adult learners. At the beginning of the questionnaire, some demographic features are asked including what gender they belong to, how old they are, what qualification they have in the field, how long they have been teaching, what levels they have instructed. Teachers are asked to specify the perceived usefulness of different categories of knowledge base while they are teaching using a scale from 1 to 7 (1= very necessary, 7=not useful at all) There is 0 option as well. The 0 option means students do not have any information about the term. At the end of the questionnaire, there is a part where teachers can add any knowledge type they see important. Apart from that, there are some open-ended questions for instructors to complete.

In the questionnaire there are 17 variables related to "Knowledge of Language" and 23 variables related to "Knowledge of Teaching". The questionnaire is developed considering the KB courses, that is, courses about "knowledge of language" and "knowledge of teaching" at Australian TE programs comprising of tertiary level as well as CELTA and DELTA. TESOL Programs for PhD and MA levels were examined. It was found out that TESOL programs were given by 89 programs at 31 universities. The aims and outcomes of each course were analyzed. Then key words were developed considering the objectives. Finally a list was made after the contents were reviewed and it was made a likert-scale questionnaire. 16 researchers skilled at survey studies examined the questionnaire and gave some feedback and necessary changes were made. Meanwhile, two main categories of were determined beforehand. These are "*Knowledge of Language*" (KL) and "*Knowledge of Teaching*" (KT) Thus, items were divided into these categories. Apart from that, no other presuppositions were made about the classification or different kinds of TK.

In the original questionnaire, "Knowledge of Teaching Methodology", "Curriculum", "Resources", "Contextual Factors", "Language Components", and "Language Learning Theories" scales involved high reliabilities. Their Cronbach's α was 0.8 to 0.83. "Knowledge of learners" scale involved a lower reliability. Its Cronbach's  $\alpha$  was 0.74. These mean that they possess internal consistency.

Questionnaires are one of the forms of survey studies. In spite of the advantages, Groves at al. (2004) comments that there are some disadvantages of using questionnaires. Although they successfully produce statistical generalizations to large populations, they are not really successful in understanding the intricate mechanisms affecting human behavior and thought. Therefore, some other techniques may be used for that purpose.

#### **Semi-structured Interviews**

According to Dörnyei (2007), three different categories are: "structured", "unstructured" and "semi-structured interviews". The questions are decided upon before the interviewer and the interviewee is asked a number of questions. There should be a relaxed atmosphere during the process so that the interviewee will be eager to share his/her ideas. Interview questions are of different kinds... Interviews enable the researcher to look closely into the interviewees' world by listening to their thoughts, views, feelings and so on. The interview questions are semi-structured, that is, the researcher prepared a list beforehand although she has the chance to be flexible during the interview process. Meanwhile, while interviewing the researcher should be open to emerging themes. In other words , new categories may be found during the analysis process.

Qualitative data is systematically coded and classified in order to put forth emerging themes and patterns. Transcriptions are examined and codes and sub codes are created.

As there might be ambiguity in question, they were reviewed by two experts in ELT. Before interviews, consent forms were signed and they were reminded that the interviews would be tape –recorded. Tape recording helped the researcher concentrate on the whole process rather than trying to takes notes of all that is said hurriedly. The interviewees were made sure that they had the opportunity to discontinue unless they were eager to complete the interview. The

language used was Turkish as it was assumed that the participants would feel more relaxed and confident when they used their mother tongue, which is Turkish. Thus, it was assumed that they would be more eager to express themselves. However, they chose to use English for a number of terms and did not prefer to translate them into Turkish. It was confirmed that their names were never revealed. All data were translated into English. There was a piloting of interview questions. Two experts reviewed the interview questions and made necessary comments. The interviews took about 40-50 minutes. The questions were easy to understand for the interviewees.

Questions of the interview were decided by the researcher after relevant research was reviewed. (Shulman, 1986, 1987; Abdelhafez, 2010; Jansem, 2014; Lin, 2010) However, the interview guide was not prescriptive, that is, the researcher had the opportunity to generate impromptu questions whenever necessary. Thus, it was easier to get the feelings of the interviewees. Some questions were paraphrased for some interviewees who may have found it difficult to get the purpose of some questions. Apart from that interviews were organized according to participants' availability. Finally, expert opinions were taken for validity of the instruments

In order to put forth the professional background of instructors, a number of questions are asked to the participants including demographic information, questions related to educational background, job experience, job details, professional development, experience as a student...etc.

The participants were made sure that confidentiality of the data they provided was given high priority in the study. Apart from that, thanks to voluntary participation, they were happy to answer the questions. Furthermore, they were also proud to be chosen in a study as their feelings, thoughts and ideas were genuinely valued. As the interviewees were employed at various universities in different cities, the researcher made an appointment with each of them so as to find them in their places. They all had busy schedules, that is, they had a number of lessons and other workload such as preparing for the lessons, assessing student writings...etc; therefore, sometimes it was hard to agree on a day.

Finally, the researcher asked whether the interviewees wanted to add more comments or not.. They all said no and seemed happy to have shared their feelings thoughts and experiences about TK and related points.

There were also follow up interviews after the main interviews were transcribed. The researcher took some notes of the points which were not perfectly clear. Then, she asked about the unclear points the next time they met for the follow up interview. Furthermore, interviewees were also asked to comment whether they had anything to add more later.

Teachers were asked to exemplify of some classroom experiences to grasp their professional knowledge. The interviews were lengthy due to the fact that the researcher' aim was to have a comprehensive understanding. They took nearly 1 hour.

Subsequent interviews were aimed to give a clearer understanding of the interviewers' thoughts. They included the researcher's follow up questions. After the first transcriptions were read, the researcher wanted to make sure everything was clear. This may also be called a reflection interview (Seidman, 1998)

#### **Data Analysis**

Data analysis and collection is done simultaneously, which Merriam (1998) believes that is necessary in qualitative studies. Meanwhile, both emic and etic perspectives were used to analyze data.

Generally, Shulman's framework was applied but the researcher was also careful about emerging themes and categories. As the aim was to put forth the instructors' knowledge base, a framework was sought. Rather than trying to add new terminology to knowledge bases, the researcher aimed to refine the categories making use of the data gathered.

The researcher' framework was used for the 1<sup>st</sup> level coding. The transcripts were carefully examined and codes were given by constantly reflecting on data and comparing items. The researcher made sure if some categories existed after data analysis.

All data gathered was firstly transcribed by the help of Microsoft Word program. What the interviewers were not changed or edited anyway in order to establish authenticity. Therefore, their grammatical mistakes, misunderstandings, self corrections, pauses, fillers... etc were all included in transcriptions. In order not to reveal participants' identity, their names were never given and they were mentioned as P1 meaning participant 1, P2 meaning participant 2... etc.

The researcher worked with an expert in ELT to analyze data. They often came together and discussed points during this process. After the transcription of the data, it was made sure that there were no inconsistencies between the recordings and the transcripts by getting them from 2 different experts who reviewed data taking the research questions into consideration. The process was named "content analysis", coding to get categories and then themes.

Related to ethics, some points need to be mentioned. The researcher applied to the Ethical Committee of "Institute of Educational Sciences" at ÇOMU before the study was conducted. The committee checked ethical considerations related to the study. The researcher guaranteed that all the information she gave was correct and conformed to COMU Educational Sciences Ethics council rules , ethics of science, laws as well as human rights and freedoms. She filled in an ethical evaluation form explaining how voluntary participation is established, how participants can contact the researcher, how personal information is kept confidential, what kind of precautions are taken for confidentiality... Apart from that, she also

filled in a research project information form mentioning the topic, aim, research problems, data gathering techniques and tools, participants, characteristics of participants, data gathering process, data analysis and publishing data. The proposal was accepted and permission was given to go on with the research.

#### **Trustworthiness of the study**

"Validity" and "reliability" must firstly be explained. According to Johnson & Christensen (2014) while validity means "the appropriateness of the interpretations and actions we make on the basis of the scores we get from a test or assessment procedure ", reliability means "the consistency or stability of the scores from a test" (p.185). Nevertheless, in qualitative research, different standards need to be considered for the trustworthiness of a study as there is no external reality can be observed. (Korkmazgil, 2015) Thus, in order to comment on a study's quality, different criteria are determined. For Lincoln and Cuba (1985) "credibility, transferability, dependability and conformability" are what make studies trustworthy. They explain credibility as believing in the findings' validity. So as to ensure credibility, the researcher worked with willing teachers, whose ideas were highly respected. However the interviewees answered the questions, the researcher appreciated their answers. Apart from that, during all the writing process, the researcher gave utmost importance to opinions and suggestions of the supervisor, thesis committee members and experts in the field.

Transferability is related to whether the study's findings can be used in different contexts. In other to enhance transferability, the researcher explained the context she chose clearly. The study was conducted with nonnative foreign language instructors in university setting. Every detail related to the study was clearly explained so that some implications could be drawn for other similar studies.

Dependability is about how dependent the findings are. According to Shenton (2004) dependability is established by explaining the methodology part thoroughly. Therefore, the researcher gave as much information as possible about all the processes of the study. In addition to that, getting help from other experts in the field especially for the data analysis increased dependability.

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Conformability is related to if others can confirm the findings or not. One can establish conformability by using triangulation strategy, explaining the theoretical framework in detail. Thus, the researcher tried to give detailed information for her research design.

#### **Chapter IV: Findings**

### Introduction

In this part, the results are thoroughly described. Firstly, the findings of the quantitative part are given. Then, the results of the qualitative part, that is, semi-structured interviews with instructors are examined. Finally, the results are discussed.

#### **Findings of the quantitative part**

The participants were 117 instructors from different universities in Turkey. Information about participants was given in Table 7. Most (61.5 %) were females while 38.5 % of them were male. Most of instructors (76.9%) were graduates of the department of ELT and 8.4 % of them graduates of departments like "American Culture and Literature", "English Translation and Interpretation". Majority of instructors in the study had a Master or PhD degree (61.5 %). While 38.5 % of instructors in the study had teaching experience less than 5 years (regarded as novice), 61.5 % of them had more than 5 years (regarded as experienced). The data collected from 29 different universities but 8.5 % of instructors work as an instructor at Adnan Menderes University, 8.5 % of them at Bursa Technical University, 9.4 % at Ege University, 12 % at Muğla Sıtkı Koçman University and 11.2 % at Selçuk University. In addition, mean age of instructors was 35.63.

#### Table 7

#### Frequency Percent Female 72 61.5 % 45 38.5 % Male Gender Total 100 % 117 ELT 90 76.9 % English Language and Literature 14.5 % 17 Graduation 8.4 % Other 10 Total 117 100 % 61.5 % Yes 72 45 No 38.5 % MA or PhD degree Total 117 100 % Less than 5 years 45 38.5 % Teaching background More than 5 years 72 61.5 % Total 117 100~%

#### Information about participants in the quantitative part

Table 8 presents descriptive statistics of items for "Knowledge of Language" (i.e., total number of responses, minimum and maximum score, mean and standard deviation). In Knowledge of Language, mean scores show that the instructors found "knowledge of meaning and items the useful whereas grammar and word use" most "bilingualism/multilingualism, first language acquisition theories, World Englishes and literacy" as the least useful when teaching English at university. Generally, the instructors didn't assess items as unfamiliar but some instructors said that they were unfamiliar with the term "morphology, pragmatics, sociolinguistics, English literature, discourse analysis, World Englishes, second language acquisition theories, bilingualism/multilingualism and literacy". However, one or two instructors assessed those terms as unfamiliar for each item.

#### Table 8

## Descriptive statistics of each item for "knowledge of language"

Items	N	Min	Max	Mean	Standard
nems	IN	IVIIII	Iviax	wiean	deviation
Grammar	117	1	7	6.15	1.33
Word meaning and use	117	2	7	6.71	0.85
Phonology	117	1	7	5.87	1.51
Morphology	117	0	7	5.56	1.57
Pragmatics	117	0	7	5.51	1.56
Sociolinguistics	117	0	7	5.46	1.61
EAP /ESP	117	1	7	5.68	1.54
Language and culture	117	2	7	5.62	1.14
English literature	117	0	7	4.71	1.51
Discourse analysis	117	0	7	5.12	1.57
World Englishes	117	0	7	3.34	2.31
L1 acquisition theories	117	1	7	3.32	1.90
L2 acquisition theories	117	0	7	5.66	1.74
Bilingualism/multilingualism	117	0	7	2.80	2.17
Intercultural communication	117	1	7	3.79	2.29
English as a global language	117	1	7	3.80	2.43
Literacy	117	0	7	3.33	2.37

Table 9 provides descriptive statistics for "knowledge of language teaching and learning". In "knowledge of language teaching and learning", mean scores for "teaching reading, writing, speaking and listening" were the highest suggesting that instructors consider those were most useful. On the other hand, instructors regarded "nonverbal communication in L2 learning" and "teaching English in international contexts" as the least useful in "knowledge of language teaching and learning". Generally, the instructors didn't assess items as unfamiliar but a few instructors said that they were unfamiliar with the term "ELT methodology, computer assisted language learning, E-learning, Adult learning, nonverbal communication in L2 learning, teaching English in international contexts, curriculum design, syllabus design, lesson planning, curriculum evaluation".

## Table 9

# Descriptive statistics of each item for "knowledge of language teaching and learning"

Items	N	Min	Max	Mean	Standard	
itenis	1	141111	Iviax	wican	deviation	
Teaching reading	117	4	7	6.84	0.49	
Teaching writing	117	3	7	6.78	0.63	
Teaching speaking	117	2	7	6.89	0.54	
Teaching listening	117	2	7	6.86	0.57	
Teaching pronunciation	117	3	7	6.42	1.03	
Teaching grammar	117	1	7	6.35	1.19	
Teaching vocabulary	117	3	7	6.75	0.71	
ELT methodology	117	0	7	6.26	1.33	
Developing language teaching materials	117	1	7	5.78	1.38	
Communicative language teaching	117	3	7	6.62	0.86	
Designing tasks	117	1	7	6.28	1.20	
Computer assisted language learning	117	0	7	5.26	1.49	
E-learning	117	0	7	5.21	1.56	
Adult learning	117	0	7	5.40	1.57	
Classroom organization	117	1	7	6.25	1.36	
Learner sensitivity and learning styles	117	1	7	6.38	1.27	
Nonverbal communication in L2 learning	117	0	7	3.44	2.52	
Teaching English in international contexts	117	0	7	3.57	2.57	
Curriculum design	117	0	7	5.34	1.69	
Syllabus design	117	0	7	5.60	1.61	
Lesson planning	117	0	7	6.11	1.46	
Curriculum evaluation	117	0	7	5.78	1.78	
Language testing	117	2	7	6.09	1.12	

# Structure of "Knowledge of English Language System" and "Knowledge of Language Teaching and Learning"

Within "knowledge of English language system" and "knowledge of language teaching and learning", particular items should cluster and form a component of corresponding knowledge. So as to determine the types of knowledge that band together, principal component analysis has been used. The goal is to obtain a small number of parts to explain the variability. It is named as data reduction, is generally used if one wants to summarize measures without loss of information in the data. However, PCA is usually confused with exploratory factor analysis but there are significant differences between them (Dunteman, 1989; Decoster, 1998; Abdi & Williams, 2010; Krishnan, 2011).

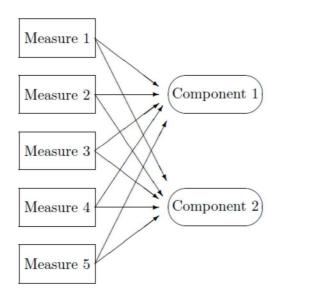


Figure 5. The model for PCA (Decoster, 1998, p.4)

DeCoster (1989) states that steps for the analysis can be categorized into seven steps: (p.2-

3)

- 1. "Collect measurements. You need to measure your variables on the same units.
- 2. Obtain the correlation matrix. You need to get the correlations between variables.

- 3. *Select the number of factors for inclusion.* If you have k measures, then you can at most extract k factors. In order to decide on optimal number of factors, the one can use the number of factors equal to the number of the eigenvalues greater than one.
- 4. *Extract your initial set of factors*. This step is too complex to be done by hand so a computer program should be used for this step.
- 5. *Rotate your factors to a final solution*. By rotating factors, the one tries to find a factor solution which has the simplest interpretation. There are two types of rotations, orthogonal rotations, which produce uncorrelated factors, and oblique rotations, which produce correlated factors.
- 6. *Interpret your factor structure*. Each of the measures will be linearly related to each of the factors. The strength of this relationship is showed by the factor loading.
- 7. *Construct factor scores for further analysis.* If you wish to perform additional analyses using the factors as variables you will need to construct factor scores."

Following these steps, principal component analysis was performed separately for "knowledge of English language system" and "knowledge of language teaching and learning" by using statistical software SPSS version 22.

#### Knowledge of English Language System

First, the factorability of 17 items for knowledge of English language system is examined. "The Kaiser-Meyer-Olkin measure of sampling adequacy" is 0.85, over the commonly suggested value of .6. "Bartlett's test of sphericity" is notable. ( $\chi 2$  (136) = 1687.915, p < .05). "The diagonals of the anti-image correlation matrix" are all over 0.5. Eventually, communalities are all over 0.5 except word meaning and use. Therefore, each item had some common variance with others so analysis was found suitable with 17 items. The analysis with no rotation yielded two factors explaining 66.56 % of the variance for the entire set. Factor 1 was named "*knowledge of language components*" considering the high loadings of these items: grammar, word meaning and use, phonology, morphology, pragmatics. The 1st factor clarified 37.91 % of the variance. The 2<sup>nd</sup> factor derived was named "*knowledge of contextual factors and language learning theories*" clarifying 28.65 %. The labels suggested by Yazdanpanah (2011) matched the extracted factors and were kept but "knowledge of contextual factors and knowledge of language learning theories" were merged in our study. Factor loadings given in Table 10 indicates that all items own factor loadings over 0.4 suggesting that items and factors have a moderately strong relationship.

#### Table 10

Items	Factor 1	Factor 2	Communalities
Grammar	0.77		0.60
Word meaning and use	0.48		0.23
Phonology	0.82		0.69
Morphology	0.80		0.78
Pragmatics	0.54		0.67
Sociolinguistics		0.64	0.68
English for academic/specific purposes		0.75	0.64
Language and culture		0.77	0.60
English literature		0.63	0.61
Discourse analysis		0.77	0.74
World Englishes		0.50	0.74
First language acquisition theories		0.57	0.58
Second language acquisition theories		0.52	0.48
Bilingualism/multilingualism		0.52	0.70

Principal components analysis results for knowledge of English language system

Intercultural communication		0.52	0.86
English as a global language		0.41	0.89
Literacy		0.47	0.84
Eigenvalue	6.45	4.87	
Variance explained	37.91 %	28.65 %	

For reliability, internal consistency for each factor was studied making use of Cronbach's alpha. The internal consistency coefficients (0.83 for "knowledge of language components", 0.86 for "knowledge of contextual factors and language learning theories") were greater than 0.70 suggesting that both measures are reliable.

#### Knowledge of Language Teaching and Learning

Initially, factorability of 23 items for "knowledge of language teaching and learning" is examined. "The Kaiser-Meyer-Olkin measure of sampling adequacy" is 0.85, over mostly suggested value of .6. "Bartlett's test of sphericity" is significant ( $\chi 2$  (253) = 2538.337, p < .05). "The diagonals of the anti-image correlation matrix" are over 0.5. Apart from that, communalities are all over 0.5. This meant that items shared some variance with others. Therefore, factor analysis seemed consistent with all 23 items.

"Analysis with Varimax orthogonal rotation" put forth three factors and they accounted for a 68.53 % of the variance for the entire set. Because of the loaded items, factor 1 was named "*curriculum knowledge*" explaining 31.80 % of the variance. The 2<sup>nd</sup> factor was named "*knowledge of teaching methodology*" explaining 19.46 %. The third factor labeled as "*knowledge of resources and technology*" explained 17.27 % of the variance. The factor labels suggested by Yazdanpanah (2011) suited the extracted factors and were kept but "knowledge of learners" vanished after findings. Items in the factor of "knowledge of learners" inside "knowledge of teaching methodology methodology". In the factor of "knowledge of "knowledge of learners" inside "knowledge of teaching factors. Instructors in Turkey might consider "knowledge of learners" inside "knowledge of teaching methodology and curriculum". Factor

loadings given in Table 11 indicates that all have factor loadings over 0.4 suggesting that items and factors have a moderately strong relationship.

## Table 11

Items	Factor 1	Factor 2	Factor 3	Communalities
Teaching reading		0.81		0.69
Teaching writing		0.83		0.79
Teaching speaking		0.89		0.82
Teaching listening		0.87		0.79
Teaching pronunciation		0.53		0.55
Teaching grammar		0.38		0.57
Teaching vocabulary		0.60		0.54
ELT methodology		0.32		0.70
Developing language teaching materials	0.84			0.73
Communicative language teaching		0.45		0.61
Designing tasks	0.78			0.73
Computer assisted language learning			0.69	0.66
E-learning			0.64	0.57
Adult learning			0.42	0.66
Classroom organization	0.74			0.68
Learner sensitivity and learning styles	0.71			0.58
Nonverbal communication in L2 learning			0.79	0.66
Teaching English in international contexts			0.87	0.79
Curriculum design	0.75			0.70
Syllabus design	0.81			0.71
Lesson planning	0.75			0.65
Curriculum evaluation	0.88			0.80

PCA results for "knowledge of language teaching and learning"

Language testing	0.88			0.81
Eigenvalue	7.31	4.48	3.97	
Variance explained	31.80 %	19.46 %.	17.27 %	

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For the reliability, internal consistency for each factor was tested by "Cronbach's alpha". The internal consistency coefficients (0.88 for curriculum knowledge, 0.94 for knowledge of teaching methodology, 0.84 for knowledge of resources and technology) were greater than 0.70 suggesting that the measures are all reliable.

#### **Comparison of Knowledge Base of Novice and Experienced EFL Instructors**

Independent-samples t-test is run for comparing novice and experienced instructors' knowledge base. Analyses are carried out separately factors for both "knowledge of English language system" and "knowledge of language teaching and learning". When using this, one must be certain that data can be analyzed by this test.

#### Table 12

#### Results of "Shapiro-Wilk test of normality"

Dependent variables	Groups	Statistics
Knowledge of language components	Novice	0.638 (45), p<0.05
Knowledge of language components	Experienced	0.909 (72), p<0.05
Vnewladze of contentual factors and language learning theories	Novice	0.948 (45), p<0.05
Knowledge of contextual factors and language learning theories	Experienced	0.974 (72), p>0.05
	Novice	0.734 (45), p<0.05
Curriculum knowledge	Experienced	0.814 (72), p<0.05
	Novice	0.352 (45), p<0.05
Knowledge of teaching methodology	Experienced	0.764 (72), p<0.05
	Novice	0.951 (45), p>0.05
Knowledge of resources and technology	Experienced	0.927 (72), p<0.05

#### Table 13

Results of "Levene's test for homogeneity of variances"

Dependent variables	Statistics
"Knowledge of language components"	9.354, p < 0.05
"Knowledge of contextual factors and language learning theories"	15.586, p < 0.05
"Curriculum knowledge"	3.813, p > 0.05
"Knowledge of teaching methodology"	20.159, p < 0.05
"Knowledge of resources and technology"	9.240, p < 0.05

#### Comparison by Means of Knowledge of English Language System

An independent-samples t-test is run for comparing usefulness of "knowledge of language components" and "knowledge of contextual factors and language learning theories" in teaching English for novice and experienced instructors. A significant difference was displayed in usefulness of knowledge of language components results for novice (M= 6.50, SD= 0.77) and experienced (M= 5.62, SD= 1.11) instructors; t(113,590) = 5.086, p= 0.000. This result suggests that experience has an effect on usefulness of knowledge of language components. Specifically, novice instructors compared to experienced instructors think that knowledge of language components is more useful in teaching English. Mean scores show that both novice and experienced instructors think that knowledge of language components is highly useful in teaching English but novice instructors say that it is more useful.

A notable difference was displayed in of usefulness of knowledge of contextual factors and language learning theories results for novice (M= 4.05, SD= 0.87) and experienced (M= 4.60, SD= 1.32) instructors; t(114.699) = -2.694, p= 0.008. This result suggests that experience has an effect on usefulness of knowledge of contextual factors and language learning theories. Specifically, experienced instructors compared to novice instructors think that knowledge of contextual factors and language learning theories is more useful in teaching English. However, they think that knowledge of contextual factors and language learning theories is moderately useful in teaching English but experienced instructors think that it is more useful.

Illustration of difference in means for both dependent variables is given in nelow.

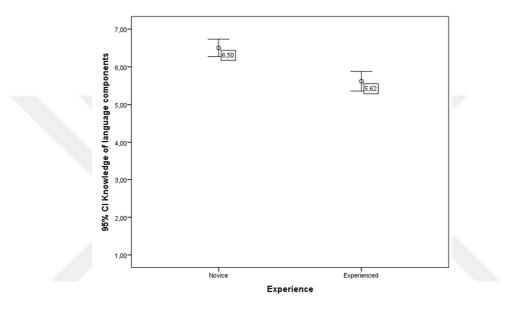


Figure 6. Means of "knowledge of language components"

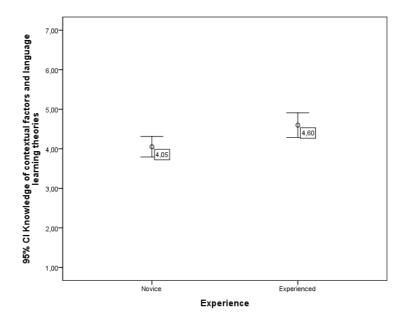


Figure 7. Means for knowledge of "contextual factors and language learning theories"

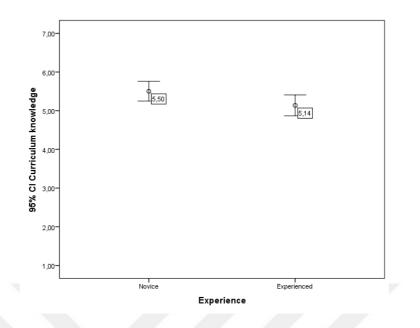
#### Comparison by Means of "Knowledge of Language Teaching and Learning"

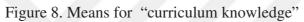
An independent-samples t-test was run for all comparisons. No significant difference was displayed in usefulness of curriculum knowledge results for novice (M=5.50, SD=0.84) and experienced (M=5.14, SD=1.15) instructors; t(115) = 1.843, p= 0.068. This result suggests that experience has no effect on usefulness of "curriculum knowledge". Specifically, both novice and experienced instructors equally think that curriculum knowledge is moderately useful in teaching English.

Significant difference was displayed in usefulness of knowledge of teaching methodology results for novice (M= 6.90, SD= 0.34) and experienced (M= 6.48, SD= 0.69) instructors; t(109,909) = 4,359, p= 0.000. This result implies that experience has an effect on usefulness of knowledge of teaching methodology. Specifically, novice instructors compared to experienced instructors think that knowledge of teaching methodology is more useful in teaching English. Mean scores indicate that generally novice and experienced instructors think that knowledge of teaching methodology is very useful in teaching English but novice teachers think that it is more useful.

A significant difference was displayed in usefulness of knowledge of resources and technology results for novice (M= 4.02, SD= 1.23) and experienced (M= 4.92, SD= 1.67) instructors; t(111,904) = -3,353, p= 0.001. This result suggests that experience has an effect on usefulness of knowledge of resources and technology. Specifically, experienced instructors compared to novice instructors think that knowledge of resources and technology is more useful in teaching English. Mean scores suggest that both novice and experienced instructors think that knowledge of resources and technology is moderately useful in teaching English but experienced ones consider it more useful in teaching English.

Illustration of difference in means for all dependent variables in "knowledge of language teaching and learning" is given in Figure 2.





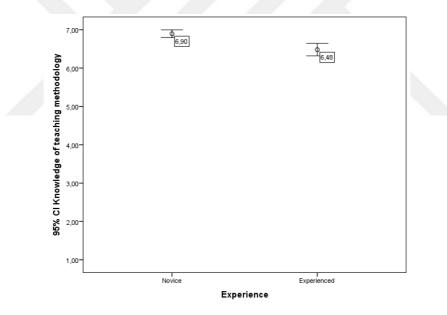


Figure 9. Means for "knowledge of teaching methodology"

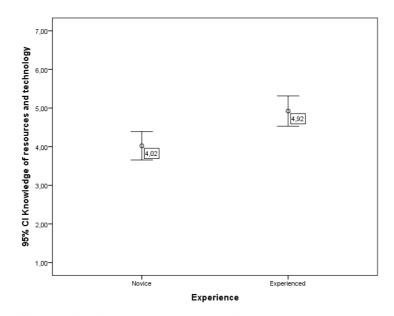


Figure 10. Means for knowledge of resources and technology

#### Findings of the qualitative part

The qualitative part included interviews with a number of people.

Table 14

16.01.2018

Date and duration of interviews

Date and Duration of Interviews Interviewee 1 (A) Date Length 15.01.2018 35:56 min Interviewee 2 (B) Date Length 25:08 min 15.01.2018 Interviewee 3 (C) Date Length 38:56 min 15.01.2018 Interviewee 4(D) Date Length 39:44 min 15.01.2018 Interviewee 5 (E) Date Length 29.01.2018 28:08 min Interviewee 6 (F) Date Length 18.01.2018 51:02 min Interviewee 7(G) Date Length

48:16 min

Interviewee 8 (H)				
Date	Length			
17.01.2018	52:03 min			
	Interviewee 9			
Date	Length			
23.03.2018	46:13 min			
	Interviewee 10			
Date	Length			
22.04.2018	49: 11 min			
	Interviewee 11			
Date	Length			
18.04.2018	54:16 min			
	Interviewee 12			
Date	Length			
11.04.2018	49:12 min			

The aim of asking personal questions to participants was to have a general idea about them. The first question was about age. The related question was about their experience in teaching English. 6 of them were experienced and 6 were novice instructors.

#### Table 15

	Age	Experience
Int 1	36	12 years
Int 2	36	11 years
Int 3	35	10 years
Int 4	44	22 years.
Int 5	40	19 years
Int 6	39	18 years
Int 7	27	3 years
Int 8	26	3 years
Int 9	25	2 years
Int 10	25	2 years
Int 11	27	4 years
Int 12	28	3 years

Age and experience of interviewees

## Table 16

Experienced instructors by age and experience

	Mean	Median	Mode	Min	max
Age	38,33	37.5	36	35	44
Experience	15.33	15	-	10	22

## Table 17

## Novice instructors by age and experience

	Mean	Median	Mode	Min	Max
Age	26.2	26	25	25	28
Experience	2.83	3	3	2	4

## Table 18

## Teacher qualifications

Int 1	Undergraduate in ELT
	MA in ELT
	PhD in ELT (in progress)
Int 2	Undergraduate in ELT
	MA in ELT
	PhD in ELT (in progress)
Int 3	Undergraduate in ELT
	MA in ELT
т. 4	
Int 4	Undergraduate in ELT
	MA in ELT
Int 5	Undergraduate in ELT
Int J	MA in ELT
	PhD in ELT
Int 6	Undergraduate in ELT
	MA in ELT
Int 7	Undergraduate in ELT
	MA in ELT
Int 8	Undergraduate in ELT
	MA in ELL
Lut O	Underson desets in DI T
Int 9	Undergraduate in ELT MA in ELT
	MAIIIELI
Int 10	Undergraduate in ELT
Int 10	MA in ELT
Int 11	Undergraduate in ELT
	MA in ELT
Int 12	Undergraduate in ELT
	MA in ELT

In order to understand how they improve themselves professionally, they were asked about their professional development activities.

Int 1: I am always in contact with my colleagues from other universities. I have learned a lot from my colleagues working in private universities.

Int 2: reading in my field of ELT, sharing ideas with colleagues

Int 5: Post doc, reading related literature, attending conferences and making presentations, learning from colleagues, writing articles in the field.

Int 10: I read online journals, search on the internet, talk to my colleagues, attend seminars, conferences, read classical novels, watch educational videos on the internet, reflect on my teaching by writing every day

Int 11: I attend conferences or workshops, read related articles, ask for help from experienced colleagues, get feedback from my students, self reflection talk to native speakers and watch original films in English to improve my listening and speaking skill.

In sum, their answers were:

- reading related materials
- participating in conferences
- cooperating with colleagues
- self-reflection
- talking to native speakers of English
- writing articles

It was seen that there were not many divergences between novice and experienced instructors about PDA. They all gave importance to PDA. However, novice instructors emphasized self reflection more while experienced instructors put an emphasis on cooperating with colleagues.

Another question was related to their previous experiences of going and staying abroad. All experienced participants replied that they had been abroad for purposes of education and holiday. These were generally short visits –up to 3 months- for all of them. Meanwhile, only 2 out of the 6 novice instructors indicated that they had been abroad for only a short time in the past and these visits were not particularly for purposes of education.

Related to the question of the level of their students, that is, which levels they have taught so far, experienced instructors indicated that they taught all levels from A1 to C2. However, inexperienced instructors said that they mostly taught English to A1, A2 or B1 students.

It was seen important to ask about what kind of teachers they chose to be role models when they were students. Their answers varied:

Int 2: I was impressed by their academic knowledge, good communication skills with students, humanity, good teacher characteristics

Int 3: Not role models but I liked their teaching. They had their own style of teaching. They did not imitate others. They could use language fluently and accurately, were flexible, fun, not trying to sound like a native speaker

Int 8: I liked teachers who made me feel that they knew a lot about the English language, who were enthusiastic to teach.

Generally it can be concluded that instructors whether novice or experienced liked teachers who seemed to have impressive content knowledge. Apart from that, they emphasized their high motivation to teach and good relations with students. Another related question was 'How did your education affect the way you teach today?' The aim of this question was to put forth the relationship between their educational background and their present way of teaching.

Int 3: How I was taught may have affected how I teach. I think I apply practices. Those I learned easier. Without much self-awareness

Int 6: I was greatly affected by how I was taught English in the past. For instance, were often taught using the techniques of Grammar Translation Method. However, it did not help me learn the language adequately. Therefore, I try not to use that method for my students.

Int 8: My teaching was shaped by what I experienced as a student. I had my own strategies of learning English. I suggested those strategies to my students. I empathize with my students and try not to give boring lessons.

Int 11: The teachers I took as a role model guided me in terms of how to manage the classroom. The methodology courses I took at university helped me teach language effectively.

They all priotized their educational background. This background helped them decide how they should or should not act as a teacher in class. Their positive and negative experiences guided them in terms of how they teach today. No differences were observed between their views.

To find answers to the first RQ, some detailed questions were used. Firstly, most important content knowledge domains were mentioned as follows:

Int 1: It depends. For me, there is no degree of importance. It depends according to the level and the age group of the teacher's students. For instance, for a teacher of beginner young learners, grammar is not important. For me, it is grammar and vocabulary knowledge

speaking. Because by this, we can provide our students with input. In order to get output from our students, we need to be competent in speaking

Int 3: All are important, but CK is important but what is more important than CK is how to share this knowledge accurately. It isn't necessary for a teacher to be perfect in terms of content knowledge. I think teaching skills are more important

Int 5: Language is complex. We cannot have knowledge of everything related to the English. I chose to specialize in linguistics, others in literature, some in ELT. Focusing on one specific field makes one more professional. We also need to learn the culture of that language.

Int 7: Grammar and vocabulary. Without adequate grammatical knowledge, one cannot teach the language. A teacher should not make grammatical mistakes

Int 9: Grammar is most important to me. Without enough grammatical knowledge one cannot teach General English. Vocabulary knowledge comes next

Int 10. Structure of the English language and a good command of vocabulary because without them one never feels adequate in her job.

It was seen that experienced instructors were reluctant to mention the most important categories of content knowledge. One said there is no degree of importance whereas another indicated that there is no need to separate content knowledge. When asked about content knowledge, they rather mentioned the importance of teaching skills. One experienced instructor (Int 5) highlighted the importance of knowledge of target language culture. Meanwhile, all novice instructors gave the highest priority to grammar and then vocabulary.

Most important pedagogical knowledge domains were mentioned as follows:

Int 2: How you deliver information, how successful you are in delivering information, how much students get your input, classroom management, testing and assessment.

They are like the walls of a house. Without one wall, it is difficult to survive. I think the most important is how you deliver and how much do students get

Int 3: perceiving the context, students' learning styles well and shaping his own knowledge constantly according to his learners, renewing and adapting his knowledge. Rather than presenting static knowledge, being flexible and being open to reshaping one's knowledge

Int 4: All general pedagogical knowledge is incredibly important. I object to people who graduated from literature departments to become English teachers because they do not have enough GPK. They did not take related courses at university. 3 –month formation courses are not enough.

Int 5: General knowledge of how to teach is more important than anything. One may know a lot, one may be competent in many areas but general teaching knowledge is very necessary and this can be achieved but some things are instinctual: transferring knowledge to students considering their level. In language classes, our students may have different levels of proficiency although they entered the same exams. Thus, it's necessary to give a lesson appropriate to their level. This can be achieved by having GPK.

Int 6: Classroom management and general teaching skills are important

Int 7: Classroom management skills, testing and assessment. If one does not have adequate classroom management skills, it is impossible to teach something. You have to organize the class well. Otherwise, they will not get ready to learn something. If no one can hear you because of loud noise made by disruptive students, you cannot start to teach.

Int 8: Classroom management, teaching skills strategies, testing and assessment, guidance. Without this knowledge, one cannot teach anything in class.

Int 10: General teaching strategies, classroom management, testing and assessment . Every teacher must have a battery of pedagogical knowledge in order to teach effectively. One must know how to teach in general. Everything related to PK is highly necessary.

It was seen that nearly all novice instructors mentioned classroom management, testing and assessment and general teaching principles. Meanwhile, experienced instructors gave more detailed answers to this question. Interviewees 1, 2 and 6 specifically mentioned classroom management. Interviewees 2, 5 and 6 mentioned presentation skills. Another important point is that knowledge of students, particularly their level of proficiency, learning styles and their intake was also mentioned under GPK.

Related to most important pedagogical content knowledge domains, instructors gave the following answers:

Int 1: No difference in terms of importance. Teacher gives higher priority to what s/he is most skilled in. But as I use a coursebook, that coursebook gives adequate importance to each component of English

Int 2: Knowledge that gives students input and then can be seen by output. I prefer activities .Providing input by reading and listening and expecting output by speaking and writing. As for exam, grammar is indispensable of this

Int 3: As I work in an academic setting, of course reading and writing skills gain importance. Because students usually follow their studies mostly by the help of these two skills.

Int 4: Knowledge of teaching grammar is of course important although it seems clear that grammar is not so important in everyday life. We see no appropriate grammar in the TV series or films our students watch Int 5: No one skill is superior. All four skills are integrated in every lesson. All the four skills are necessary for a language teacher. In a 45 minute lesson, we have to make various activities involving all skills

Int 9: Teaching grammar, teaching the 4 skills, teaching pronunciation,

Int 11: Teaching listening/ speaking/ reading and writing, grammar, pronunciation.

Everything related to PCK for language teachers

Int 12. Teaching grammar, teaching 4 skills, teaching pronunciation,

2 of the experienced instructors (Int 1 and Int 5) mentioned that no skill is superior to the others. For Int 3, they were teaching reading and writing. For Int 4, it was teaching grammar. As for inexperienced instructors, they mentioned "teaching the four skills, teaching grammar and vocabulary".

Most important student knowledge domains were mentioned as follows:

- Age
- Educational background
- Level of proficiency
- Interests
- Different motivations for learning English
- Some personality traits
- Needs, wants, preferences
- Their misconceptions about learning a foreign language
- Difficulties they experience while learning L2.

Both novice and experienced instructors mentioned similar knowledge of students. However, novice instructors seemed more interested in gathering knowledge about their students from some sources. For curriculum knowledge, contextual knowledge, knowledge of self, none of the instructors specified the constituents. They rather saw the categories holistically and commented about them in this way.

To find answers to the second RQ about sources of KB, some detailed questions were asked for different knowledge types The sources of their CK were asked. Their answers were:

Int 1: individual effort and university studies.

Int 3: Generally at university. I completed it at university

Int 7: I think my content knowledge was increased at university but I had learned a great many things in terms of content knowledge especially in high schools Int 10: I learned English mainly in high school. However, I was very keen on reading extensively. My own struggle to improve myself. I learned most new words by reading extensively. For grammar, reading also helped me

Int 11: All General English courses I took in the past especially when I was a teenager

It was seen that instructors mostly emphasized high school, undergraduate studies and individual effort. Meanwhile, novice instructors more emphasized the knowledge they got when they were in high schools as the main source of their CK.

Sources of General Pedagogical Knowledge were asked:

Int 3: I think experience most. In addition, the courses I got at university also support it. In other words, I think they support the teacher in this area. Sometimes you do something unconsciously. If you take that related course, you become self-aware. These two things combine and something better emerge.

Int 5: Ability. When I was at university, my mentor teacher in teaching practice course observed me and said you were born to be a teacher. This impressed me very much and the next day every other teacher came to me and were surprised how I had impressed that teacher. They asked me what I did in class as he is rarely happy with a student's class performance. Later, when I started actual teaching, I realized that all my students commented on my teaching skills saying we can learn English effectively in your classes. In order to teach something well, one needs to have the ability to teach. A teacher who has the ability to teach can learn teaching skills more easily. Such people become more successful when they learn the skills.

Int 6: I learned how to teach effectively by experience. As time passed, I became more skillful in managing the language

Int 8: University courses, experience as a student, less experience as a teacher.

Int 12: Classroom management course, testing and assessment course

It was seen that experienced instructors mostly focused on experience. One instructor especially said that ability made a difference. For novice instructors, they all mentioned that their main source of GPK were the courses they had taken as university ELT students.

Sources of Pedagogical Content Knowledge were mentioned in these statements:

Int 1: My previous favourite English teachers and courses I took at university and my own university students

Int 2: I got theoretical knowledge at university-undergraduate and graduate. But practical knowledge was gained by my classroom practices in 5 years. My experience helped me improve my PCK.

Int 3: Not the courses I took at university. First of all, experience. Second, the courses I took at graduate level, that is, MA studies. Because, at university we learned theory but no practice. You did no practice. Thus, theory means nothing. When you start practice, theory is forgotten. When you begin M.A after you have some classroom practice, then theory and practice combine. Practice and M.A are the sources of my PCK.

Int 5: PhD, MA and undergraduate. By observing, reading from books and researching. Mostly from courses at undergraduate level and also by teaching and self-reflection

Int 8: What I learned from my instructors in some courses

Int 9: The methodology courses I took at university.

Int 10: University courses and observations of my previous teachers including instructors and high school English teacher.

Int 12. Generally from ELT Methodology and other similar courses at university

It was seen that novice instructors especially mentioned related courses they took at university whereas experienced instructors also put forth the importance of their own experiences as teachers as source of PCK.

Source of knowledge of students were mentioned as follows:

Int 2: I talk to them privately in my room, observation

Int 3: We ask some personal questions to them each lesson to personalize the lesson and make the lesson more interesting. They then put forth their personalities, preferences.... Etc

Int 4: I talk to them privately. I also ask them to write essays about themselves. I keep those essays. Ending the term, I request them to give written feedback to me. And they needn't write their names. Then they honestly write what they think of me as a teacher. I also keep those papers. I have about 3500 papers written about me. As they write essays about themselves, I get information about them. I take into consideration their feedback, their reflections and reshape myself.

Int 6: I make use of my own observations of their answers to questions and reactions in class Int 8: I request them to write about themselves at the commencement of the academic year. Later on, I observe them in my classes. I sometimes talk to them in breaks. I also talk to other instructors to check my observations or to know more about them

Int 10: Personal questions I ask in my classes, observations of students, sometimes other colleagues who are the teachers of the same classroom. For instance, one of my students always sits alone. I think that's because she has few close friends in that classroom. That's why she does not like group work activities

Int 11: My observations of the students during the lessons. Their writings, other colleagues

Int 12: I sometimes ask other teachers' opinions and I connect what I know about them with what I get from other teachers

The answers to the question showed that all instructors, novice and experienced rely on their own observations of their students. They learn about their students by observing them. Meanwhile, novice instructors also cooperated with other teachers to add to their knowledge of students.

As for the sources of curriculum knowledge, all instructors including novice and experienced ones gave the same answers. The school administration was the main source of curriculum knowledge. Then came other colleagues.

Sources of knowledge of self were as follows:

Int 1, 2, 3, 4, 5, 6: Self-reflection

Int 7: Myself, my close friends, some students.

Int 8: Self reflection and students' improvement in the language.

Int 9: I sometimes ask my colleagues how they view me, I am afraid to ask my students to evaluate me because some may be cruel in giving feedback. I don't like

negative comments. Although I do my best while teaching, some may not approve it. They may prefer teachers who deductively give the rules of the language

Int 10: Myself, my students and some of my close friends who are also my colleagues.

Int 11: I reflect on my teaching, I get feedback from my students.

All experienced instructors implied self-reflection in their answers. None of the experienced instructors mentioned their students' comments of themselves. However, novice teachers also got feedback from their students and colleagues. This may be due to experienced teachers' feeling more self-confident or being not so open to others' suggestions or comments. As for sources of knowledge of context, no specific distinctions were made.

For the last research question related to how instructors' teaching is affected by their knowledge, various answers were given. For content knowledge, interviewees mentioned the following:

Int 2: It affects our self confidence. What you know is greatly important apart from how you deliver the information

Int 5: One needs some basic knowledge but as everything changes in language, we cannot know everything. We need to read all the time

Int 6: Having satisfactory content knowledge makes us self-confident.

Int 7: I feel empowered having a good command of content knowledge. My selfefficacy enables me to try new ways of teaching a particular point. I can help my students outside class as well. Sometimes they want to learn more about the subject and ask more complicated questions, they are interested in small details. I believe I can help my students in and out of the class

Int 8: I teach what I know. If I were dissatisfied with my knowledge, I would feel insecure while teaching. My knowledge makes me feel I chose the right job for myself

Int 10: I teach my students what I have great knowledge about. If I felt inadequate, I would think it would be unfair to teach grammar and vocabulary to my students. This knowledge gives me confidence while teaching. I can answer students' questions in detail. I may sometimes give them more details if they are curious about a topic. I may direct them well in terms of how to improve their content knowledge. I may suggest them supplementary materials. I may show them ways to study a particular topic

Int 11: I have self-confidence while teaching as I know a lot about the English language. I give extra support especially for those who prefer to learn more. I'm not afraid to do more activities than needed in any level. I can answer any questions my students ask. In conclusion, my self confidence helps me to feel relaxed and this in turn creates a relaxed atmosphere in my classroom. Students are aware of my knowledge and they respect me. They feel they can learn a lot from me.

Nearly all instructors mentioned self-confidence as the effect of CK on their practices. Int 1 implied that in a lesson, a teacher emphasizes what s/he has most knowledge about. Interviewees 3, 4 and 5 did not really mention how content knowledge affects their teaching practice. However, inexperienced instructors gave more detailed answers. They all mentioned the positive effects of having good content knowledge on their actions in class. They used adjectives such as 'empowered, secure, relaxed and adequate' in addition to self-confident. This enabled them to help their students more in and out of class.

Another question was related to how general pedagogical knowledge affects instructors' teaching practices. As all our participants were graduates of English Language Departments at Faculties of Education in Turkey, they believed this knowledge is a must for all teachers regardless of what they teach. Therefore, both experienced and novice instructors gave similar answers. They answered that their GPK was what guided them most about how to teach.

Related to how PCK affects teachers' practices, novice and experienced teachers gave similar answers. They implied that it helped them put theory into practice while teaching a foreign language.

Int 5: What I learned in undergraduate courses directed my teaching the foreign language

Int 10: At university we learned different approaches, methods and techniques. We learned different strategies for teaching specific points. I apply what I learned at university in my lessons.

Int 12: I adopt eclectic method, which I learned at university in my classes.

Related to how curriculum knowledge affects teachers' practices, some answers were like this:

Int 3: We are given the curriculum beforehand. It does not affect our teaching much. Only in terms of time, we follow it. Apart from that, I think everyone adapts the curriculum themselves. When they enter the classroom, considering their students' needs, their own views, they reshape the curriculum.

Int 5: It is like a guide to a road. The student has to know what I will cover in one semester for example. If the student is given information about this, it is easier for the student to direct oneself and prepare a study plan. For instance, I tell my students what I will cover in a chronological order. We should raise the awareness of our students. If they know what they will learn beforehand, they can more easily prepare for the course, may feel more relaxed in class.

Int 7: It guides my teaching. Otherwise, I would have difficulty finding my own way especially in terms of in which order to teach.

Int 10: Restrictions related to curriculum shape my teaching. For example, how much time is given for a topic informs me about whether I have time for more activities or not.

All the instructors except for Int 3 mentioned that knowledge of curriculum guided their teaching in terms of the order of the things to teach, time allocated for teaching points...etc.

Related to how contextual knowledge affects instructors' teaching practices, they mostly indicated that knowledge of context somehow affected their teaching.

Int 2: I think it affects positively and negatively. Where you are psychologically affects you. It affects your mood and how you act. The school may have adequate facilities but the place of the campus is as important as that.

Int 3: The limitations of the school context, how they deal with issues may limit, change what you plan to do

Int 9: Contextual knowledge helps me shape my teaching. For instance, our environment does not give our students much chance to practice their English. I try to give them more opportunities.

Int 11: I am affected by how others in my context behave. I obey the rules of the school. Sometimes it restricts my teaching.

Every instructor except for Inst 5 commented that knowing about the context shaped their teaching. In other words, they were affected by their context. Other colleagues, facilities of the school, contextual limitations were what affected their teaching.

Related to how knowledge of students affects instructors' classroom practices, both novice and experienced instructors gave satisfactory answers:

Int 2: They help when we determine the content of the course. For instance, when I give ESP course for Tourism students, I may determine the content of the course making use of their experiences when they work at hotels

Int 4: It does not affect my practices. However, when I realize that one of my students has a problem, I call him /her in the break and we chat. I ask if my student is OK, if there is a problem

Int 5: For instance, I have a very shy student and I talked to him. He always sits alone at the back, there is no one around . He said all my teachers worry about me but that is my personality. I don't prefer it but I cannot socialize with others. I feel uncomfortable. I suggested getting professional help from someone but nothing more happened

Int 9: Sometimes as I know the actual level of my students, I need to simplify some exercises, add to the materials to make them more comprehensible. I ask them questions that will attract their attention or that will make them talk . I choose topics interesting for them. I relate the topics to their own lives. I sometimes personalize the materials. Some students need more explanations. I add more explanations for them. Some prefer talking a lot. I request them to work in pairs /groups to increase talking time in class. Sometimes I arrange the groups and decide for them who will work with whom.

Int 12: Their level of proficiency sometimes directs me to simplify the input. The input must be comprehensible by all the students in class.

Novice teachers seemed more affected by knowledge of their students in class.

Related to the effects of knowledge on classroom practice, the first question was 'How do your different knowledge domains affect your teaching practice?' Interviewees gave satisfactory answers to this question:

Int 2: They affect how effective you are as a teacher. You may have established rapport with students but if you don't have content knowledge, this only results in good relations. You may have good content knowledge but if you are weak at communicating with students, this means only you have this knowledge .You will not be able to transfer it to your students.

Int 3: I shape knowledge myself. I do not see them as facts that cannot be changed at all.

Int 4: For instance, I put an impatient and patient student together for an activity. I group work and pair work, I match such students who are different from one another. They need to work together in group work activities.

Int 6: Knowledge and practice is closely related. Knowledge guides you and shows you the way to teach

Int 8: My practice is totally the result of my knowledge. What I know about the language, about teaching, about teaching L2, the context, curriculum, myself... all shape my teaching. There is strong connection between knowledge and practice.

Int 9: Content knowledge makes me more confident while teaching. Knowledge of students helps me make necessary changes while teaching considering their level of proficiency, strengths, weaknesses, abilities, needs. PK helps me shape how to teach in general. PCK directs me about how to teach the foreign language.

Int 11: My knowledge areas make me feel empowered. The more empowered I feel, the more I feel satisfied with my job. This makes me motivated to be a better teacher for my students.

All instructors whether novice and experienced put an emphasis on how closely their KB and classroom practices are related. This general question showed the link between their

KB categories and classroom practices. It summed up what they had said about various categories of knowledge. Various knowledge types were mentioned by instructors.

Interviewees exemplified how to implement knowledge into practices. They were mostly aware of what they did in class. Their perceptions gave various insights about implementation of knowledge into classroom practices.

Int 3: I am not much self-aware. For example, not presenting language as a whole, putting it into pieces. Not giving information about a topic in all details, considering the level, knowing their limits, dealing accurately with the level of the students. This is based on pedagogical knowledge and experience as a teacher. But sometimes people say experience is the repetition of one's mistakes. Experience as an instructor, as a student and what I have learned from sources outside my field of study. That is, experience of life. For instance, when I read something related to history, this also affects my teaching. This may be sociology, psychology. Everything

-In what ways?

It broadens my worldview. We have to view the issue in a broader perspective. Rather than seeing it as a relation between teacher and learner. Language should be seen in a broader perspective. Political, sociological, psychological ways. But we always focus on rules and how to teach rules, vocabulary. Language should be given in a broader context. It should be associated with life

Int 4: I use knowledge of my students and develop tasks considering their level of proficiency, needs, and interests. I use curriculum knowledge to make necessary adaptations in the syllabus. I use contextual knowledge to support my students in terms of contextual constraints. I use PCK to teach the language.

Int 5: My practice is the result of my knowledge which I have expanded by experience. Professional development activities helped me improve my knowledge, which in turn improved my practices.

Int 8: I know and I am aware of the rules of grammar. This way I can explain them the rules. I Know vocabulary teaching strategies and I use the strategies to teach new words. I know some of my students' preferences. Therefore, I don't insist a very shy student to talk in front of the whole class.

Int 9: I design my lessons accordingly, how I behave in class, how I respond to my students, how I adapt materials, how I add more activities in the lesson, how I prepare lesson plans, How I give homework, evaluate assignments.

Int 10: Theory needs to be put into practice. Knowledge categories all interact in our practices. What we do in class is the outcome of our knowledge. The activities we do, the way we treat students' errors, the way we organize groups are the result of our knowledge base.

When they were asked to give examples, it was seen that both novice and experienced instructors were seen self-aware and they could give concrete examples of what they did in class.

Finally, the last question related to teaching practice was: 'Are your classroom decisions influenced by what you know?' Again their answers put forth the importance of the effects teachers' knowledge base on their decisions they gave in class.

Int 2: It depends according to the characteristics of the class. Their readiness, level of proficiency, needs, expectations.

Int 5: All my decisions are based on my knowledge base. For instance, choosing the right level, code switching, choosing appropriate activities, giving feedback, evaluating students.. etc.

Int 8: Yes. My knowledge influences how I make decisions. For instance, I decide to stop the activity when necessary thanks to my classroom management knowledge. Int 11: My classroom decisions are totally based on what I am master of and what I have experienced so far.

It was seen that novice teachers especially commented on the link between their decisions and their knowledge base. One experienced teachers emphasized the importance of her previous experiences as well.

### **Chapter V: Discussion**

## Introduction

In this part, summary of the thesis is given. Findings are discussed and final conclusions are made. Then, implications for further research including implications for language instructors, teacher trainers, language teacher candidates and policy makers are mentioned.

## **Discussion of the Findings**

Findings gave various insights about novice and experienced instructors' knowledge base. Knowledge categories should not be seen as discrete as they are all interconnected. A teacher uses a variety of different categories while teaching. However, the teacher may or may not be aware of those categories.

Data was first gathered by a questionnaire and it gave the researcher an overview of the situation. Later, the researcher organized the interview questions for the qualitative part so that the research questions could be clarified adequately. Therefore, rich data was gathered especially by teacher interviews. All participants willingly contributed to the study and commented that the interviews helped them increase their knowledge of self.

## Discussion for the 1<sup>st</sup> research question

RQ1. What constitutes the knowledge base of novice and experienced instructors? Is there a difference between their knowledge bases?

- CK Experienced instructors were reluctant to mention the most important categories of content knowledge. all novice instructors gave the highest priority to grammar and then vocabulary
- GPK all novice instructors mentioned classroom management, testing and assessment and general teaching principles. Experienced instructors also mentioned presentation skills.

- Most important student knowledge domains were as follows: age, educational background, level of proficiency, interests, different motivations for learning English, some personality traits, needs, wants, preferences, their misconceptions about learning a foreign language, difficulties they experience while learning L2.
- For curriculum knowledge, contextual knowledge, knowledge of self, none of the instructors specified the constituents. They rather saw the categories holistically and commented about them in this way.

## Discussion for the 2<sup>nd</sup> research question

RQ 2What sources contribute to the KB of instructors?

- CK instructors mostly emphasized high school, undergraduate studies and individual effort. Meanwhile, novice instructors more emphasized the knowledge they got when they were in high schools as the main source of their CK.
- GPK experienced instructors mostly focused on experience. One instructor especially said that ability made a difference. For novice instructors, they all mentioned that their main source of GPK were the courses they had taken as university ELT students.
- PCK novice instructors especially mentioned related courses they took at university whereas experienced instructors also put forth the importance of their own experiences as teachers as source of PCK.
- Students: all instructors, novice and experienced rely on their own observations of their students.
- Curriculum: all instructors including novice and experienced ones gave the same answers. The school administration was the main source of their curriculum knowledge. Then came other colleagues.

• Self: All experienced instructors implied self-reflection in their answers. None of the experienced instructors mentioned their students' comments of themselves. However, novice teachers also got feedback from their students and colleagues.

# Discussion for the 3<sup>rd</sup> research question

RQ 3What are instructors' perceptions of the influence of their KB on their classroom practices?

CK Nearly all instructors mentioned self-confidence as the effect of CK on their practices

GPK They answered that their GPK was what guided them most about how to teach.

PCK helped them put theory into practice while teaching a foreign language.

Curriculum All the instructors except for Int 3 mentioned that knowledge of

curriculum guided their teaching in terms of the order of the things to teach, time allocated for teaching points...etc

Context Other colleagues, facilities of the school, contextual limitations were what affected their teaching.

Sts Novice teachers seemed more affected by knowledge of their students in class.

All instructors whether novice and experienced put an emphasis on how closely their KB and classroom practices are related. This showed the link between their KB categories and classroom practices.

### **Chapter VI: Conclusion and Implications**

## Introduction

The chapter focuses on the conclusions gathered at the end of the study. Then implications are explicated for further research, for ELF teachers, for pre-service and finservice teacher education. Finally, suggestions are listed for the future.

### Conclusions

In terms of content knowledge, all teachers were in the opinion that content knowledge was necessary but this does not mean that anybody having enough content knowledge can teach the language effectively. Lack of content knowledge may result in failure as language instructors cannot teach what they lack. This may be about phonetics and phonology, syntax, morphology.. or so on. This knowledge empowers teachers and gives them the confidence that they teach what they have great knowledge of. The teacher needs to update existing knowledge. Teacher education programs provide student teachers with necessary knowledge but this should be constantly renewed.

Language teachers especially mention the importance of ELT methodology courses that really help them while teaching particular points to their students. Apart from that, the importance of professional development activities is put forth. After becoming aware of their strengths and weaknesses when they actually teach in classrooms, they may be involved in various PDA to improve themselves to be effective for their students.

Content knowledge is necessary for language teachers. Without sufficient content knowledge, it is not easy to be an effective teacher. They should be competent users of the language in terms of 4 skills.

All teachers should possess GPK. Novice teachers may have adequate knowledge of this type. However, it may be difficult for them to put their knowledge into practice. Because of this, some may prefer to use traditional methods to feel more confident.

All teachers indicated that PCK is a must for language teachers. They must have PCK in order to teach any language item or skill. Without this knowledge, they may not become effective L2 teachers for generally it is agreed that the wisdom of how to teach a language is more significant than theory.

Knowledge of curriculum is found necessary by all language instructors. Knowing about the curriculum makes lesson planning easier, guides especially the novice teachers in terms of time needed to teach or practice language points or materials because developing a curriculum is rather difficult for a novice instructor.

As for knowledge of students, some conclusions may be drawn about knowledge of students. Teachers should have as much information as they can related to their students. Students may have different preferences of learning L2, different motivations for learning the language, different proficiency levels and different experiences, different interests... etc. They should try to learn about their students to meet students' needs. It is necessary to build positive relationships with students.

Learning about the backgrounds of one's students is necessary for effective teaching. Their language proficiency levels must be accurately assessed and necessary adaptations should be made in the syllabus.

Language teaching is an interactive process. Both parts affect this process. The more information teachers have about their students, the easier it will be for them to make necessary adjustments in the learning environment.

For knowledge of self, it is concluded that teachers should describe themselves accurately in terms of their profession. They mentioned some of the qualities successful teachers need to have. One teacher emphasized the importance of respect and honesty.

Building the KB is also about the reflection of teachers. Teachers should constantly reflect on their knowledge and how they put their knowledge into practice. Thus, their teaching performance will be improved. Even previous misconceptions may help one understand why one acts in a particular way. Therefore it is important to examine their own practices. Here one may say that teachers take the role of researchers when critically dealing with their own practices

Knowledge of context affected teachers' decisions, actions and mood. They took contextual constraints into considerations and acted accordingly in class. For instance, the fact that there were not many people with whom students can practice their English outside class made teachers give more importance to speaking practice. They tried to extend student talking time in class as students did not have many chances to speak L2 with foreigners for real purposes.

Practical knowledge is not the same as theoretical knowledge. Experienced teachers find themselves more effective in teaching and they do not list as many weaknesses as inexperienced teachers do. Experienced teachers believe that they have become better teachers by experience.

Finally, it is difficult to consider a fixed model of TK. There is always interaction among these knowledge categories. They affect and are affected by one another. Teacher knowledge increases with experience and they may improve their classroom practices by reflecting on their knowledge bases. Teachers need to be empowered by knowledge. The more knowledge they have, the more empowered they get.

### **Implication for Further Research**

Findings may be used for various stakeholders. Some implications can be listed for EFL teachers, for pre-service and in-service teacher education.

## **Implications for EFL teachers**

Teaching is an activity affected by TK and beliefs. Studying their cognition helped them raise awareness of themselves as they reflected on their knowledge and actions in class. Some may decide to change what does not work for their students, that is, they may choose to reshape their practices.

Teachers involved in the study may benefit from reflecting on what they really need in terms of teacher knowledge in their teaching practices. University teachers may improve themselves professionally not only by doing research for themselves but by also actually teaching and then reflecting on their experiences.

## **Implications for pre-service education**

There are implications for improving pre-service education. Sometimes teachers' cognitions were not reflected on their practices because of their students and contextual constraints. This was especially true for novice teachers. They need more experience. Therefore, the amount of school experience should be increased in pre-service education. More opportunities should be given to students for teaching practice. In addition to primary or secondary schools, future teachers of English should also be sent to universities to practice teaching English to young adults. Apart from that, some elective courses should be added to programs including "English Language and Literature", "American Culture and Literature", "English Linguistics", and "English Translation and Interpretation".

As Köksal & Ulum (2018) mentions, EFL teacher education programs must be continuously developed by critically considering strengths and weaknesses of previous programs. They argue that there is a need to empower these programs by trying to make quantitative improvements.

### **Implications for in service TE**

For in-service TE, many PDA should be incorporated to update their knowledge and to lead them to change in the intended direction. Cooperative projects and activities in which experienced and less experienced teachers work together should be designed so that both parties will learn from one another. As each person has his/her strengths and weaknesses, they will help one another improve themselves by reflection. To improve the quality of practice, they need to reflect on their own knowledge base. Such a reflection on their knowledge base will give them this opportunity to improve themselves.

The more language teachers are investigated on their knowledge base, the better they will reflect on themselves, that is, they will get to understand themselves better. Some teacher development activities may be suggested for the language instructors so that they will be able to fill the gaps of their knowledge. They will become more aware of themselves as teachers. The teacher is the main element of education. Without an effective teacher, it is difficult to enhance the quality of ELT. They are expected to be well trained and have required skills, qualities and knowledge in order to teach their subject-matter. They must be knowledgeable enough.

In sum, curriculum planners, administrators, teacher trainers, and even prospective teachers can benefit from the findings. Understanding the components of language teachers' KB and its connection to classroom practice will shed light on general foreign language education at university.

Final suggestions are:

- There should be some improvements in the PDA for both novice and experienced instructors. By the help of such activities, teachers will be more aware of their weaknesses and thus improve themselves in terms of various categories of knowledge.
- There may be a longitudinal study examining how different knowledge categories evolve over time. For instance, pedagogical content knowledge of some novice instructors could be examined.
- More language instructors from a variety of teaching contexts may be included in a study.

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### Appendices

## Appendix A: Teacher Knowledge Questionnaire

#### Appendix

# Knowledge Base of Novice and Experienced EFL Instructors at Turkish Universities

### Dear participant

My name is Burcu Basak Coskun and I am conducting a study on the knowledge base of foreign language teachers for my PhD thesis, named "Knowledge Base of Novice and Experienced EFL Instructors at Turkish Universities" The aim is to investigate what constitutes the KB of novice and experienced EFL instructors, the differences between their knowledge bases , the sources contributing to their knowledge bases and their perceptions of the influence of their KB on their practices. As a part of my study, I am making use of a questionnaire asking the instructors to rate the usefulness of each type of knowledge about knowledge of the "English language system" and "knowledge of language teaching and learning". This is an anonymous questionnaire, so your identities will remain confidential. Your participation is also voluntary. If you would like to be informed of the summary of findings, please contact Burcu Başak Coşkun by email (<u>bbasak@adu.edu.tr</u>) or by phone (05326559171)

Thank you for your cooperation

### PART A: Personal Information

1.	Gender:
Ma	le
Fen	nale
2.	Age:

### 3. Graduated from:

ELT ELLS American Culture and Literature English Translation and Interpretation Linguistics Other : \_\_\_\_\_

### 4. Teaching experience:

less than 2 years 2-5 years 5-10 years 11 years and more

#### 5. Have you done MA or PhD degree? Which department did you graduate from?

6. Which university do you work as an instructor? Please write the name of the university

### 7. Levels taught

8. Teaching hours per week

# 9. How do you update yourself in ELT?

	11ess	2	3	4	5most	
	frequent				frequent	
Attending workshops, seminars, symposiums						
Reading professional journals						
Participating in research and collaborative projects.						
Benefitting from other English teachers						
Attending in-service training courses						
Making use of internet resources						
Self-monitoring						
Journal writing						
Other (specify)	1					
	2					
	3					



### Part B:

Below is a list of different types of knowledge about the "English language system and "language teaching and learning". How important are the when teaching English at university?

Rate the usefulness of each of type of knowledge from 1 for 'extremely useful ' to 7 for 'not useful at all. If you do not know a term or are uncertain of its meaning, please choose 0.

	1(extrem	2	3	4	5	6	7	0 Not
	ely							Familiar
	useful)							with the
								term
Grammar								
Word meaning &use								
Phonology								
Morphology								
Pragmatics								
Sociolinguistics								
English for academic/specific purposes								
Language &culture								
English literature								
Discourse analysis								
World Englishes								
First language acquisition theories								
Second language acquisition theories								
Bilingualism/multilingualism								
Intercultural communication								
English as a global language								
Literacy								

### 1. Knowledge of the English language system

2. Specify and rate the usefulness of any other "knowledge of the English language system" here. Give a score of 1 to 7 where 1 is extremely useful and 7 is not useful at all.

Other (specify and give a score)

Other (specify and give a score)\_\_\_\_\_

Other (specify and give a score)\_\_\_\_\_

### 3. Knowledge of language teaching & learning

	1(extrem ely useful)	2	3	4	5	6	7	0 Not Familiar with the term
Teaching reading								
Teaching writing								
Teaching speaking								
Teaching listening								
Teaching pronunciation								
Teaching grammar								
Teaching vocabulary								
English language teaching methodology								
Developing language teaching materials								
Communicative language teaching								
Designing tasks								
Computer assisted language learning								
E-learning								
Adult learning								
Classroom organization								
Learner sensitivities &learning styles								
Nonverbal communication in L2 learning								
Teaching English in international contexts								
Curriculum design								
Syllabus design				+	1			
Lesson planning				$\square$	1			
Curriculum evaluation								
Langauge Testing								

4. Specify and rate the usefulness of any other knowledge of teaching &learning here. Give a score of 1 to 7 where 1 is extremely useful and 7 is not useful at all.

Other (please specify and give a score)

Other (please specify and give a score)\_\_\_\_\_

Other (please specify and give a score)\_\_\_\_\_

5. Any comments?

## **Appendix B: Likely Interview Questions (TURKISH)**

Kişisel bilgiler, profesyonel deneyim, tercihler

-Kaç yaşındasınız?

-İngilizce öğrenmeye ne zaman başladınız?

-İngilizce alanında hangi diplomalara sahipsiniz? (lisans/yüksek lisans /doktora)

-Ne kadar zamadır İngilizce öğretiyorsunuz?

-Hangi üniversiteden mezun oldunuz?

-Hangi bölümleri bitirdiniz?

- Ne zaman mezun oldunuz?

- Nerelerde çalıştınız?

-Şu an çalıştığınız yerde ne zamandır görev yapıyorsunuz?

-Hiç yurtdışına çıktınız mı? Hangi ülke? ne kadar süre? Ne amaçla?

-Haftada kaç saat der veriyorsunuz?

-Kaç farklı derse girdiniz? Bunlar nelerdir?

-Hangi seviyelerde yabancı dil dersi verdiniz?

-Ortalama kaç öğrenciniz var? (Her bir ders için)

-Profesyonel anlamda kendinizi nasıl geliştirmeyi tercih edersiniz?

-Öğrenciliğinizde ne tür öğretmenleri rol-model olarak almıştınız?

-Geçmiş eğitim hayatınız şu anki öğretmenliğinizi ne şekilde etkilemiştir?

-Şu anki öğretmenliğinizi e çok etkileyen bir yaşam deneyiminizi hatırlıyor musunuz?

Alan bilgisi

-Hangi alan bilgisi sizin için en önemlidir?Neden? (gramer, kelime...)

-Alan bilgisine nasıl sahip oldunuz?

-Alan bilginiz öğretmenliğinizi nasıl etkilemektedir?

Pedagojik bilgi

-Öğretmenlik bilgisi alanında en önemli bulduğunuz bölümler nelerdir? Neden? (sınıf yönetimi)

-Sınıfı nasıl yönetirsiniz?

-Öğretmenlik alan bilgisine nasıl sahip oldunuz?

Müfredat bilgisi

-Hangi bilgiler size gereklidir?

-Müfredat bilgisi öğretiminizi nasıl etkiler?

- Seçilen ders kitapları hakkında ne düşünüyorsunuz?

-Ne tarz kaynaklara sahipsiniz?

-Ders kitaplarının eğitimdeki rolü hakkında ne düşünüyorsunuz?

- Kitap seçimini nasıl yapıyorsunuz?
- -Kaynak kitap ihtiyacınız var mı? Kullanıyor musunuz?
- Ders planı yapıyor musunuz?
- -Müfredat bilgisini nasıl elde ettiniz?

Pedagojik alan bilgisi

-Yabancı dil öğretiminde hangi bilgi önemlidir? (dört dil becerisi öğretimi, telaffuz öğretimi...)

-Dört dil becerisi/ kelime/gramer/ telaffuz öğretimi alanlarında güçlü ve zayıf yanlarınız nelerdir?

- -İngilizce öğretimi alanındaki bilgilerinizi nasıl uygulamaya koyuyorsunuz?
- Pedagojik alan bilgisini nasıl elde ettiniz?

Öğrenci bilgisi

- -Öğrencileriniz hakkında hangi bilgilere sahipsiniz?
- -Öğrencilerinizi nasıl tanımlarsınız?
- Nasıl öğrencileri tercih edersiniz?
- -Öğrencilerinizle ilgili sahip olduğunuz bilgi öğretiminizi nasıl etkiler?

-Öğrencilerinizi nasıl motive edersiniz?

- -Sınıfta pozitif bir atmosfer nasıl yaratabilirsiniz?
- -Öğrencileriniz ile iyi ilişkiler nasıl kurabilirsiniz?
- -Öğrencilerinizin yabancı dil öğrenirken en çok karşılaştığı sorunlar nelerdir?
- -Öğrencilerin olumsuz davranışları ile nasıl baş edersiniz?
- -Sizce öğrencilerin yabancı dil öğrenme ile ilgili yanlış inanışları var mıdır?
- -Öğrencilerle ilgili bilgi kaynaklarınız nelerdir?
- -Sizce öğrencilerinizin yabancı dil öğrenmede genel amacı nedir?

Ortam

- -Hangi bilgiler size gereklidir?
- -Ortam bilgisine nasıl elde ettiniz?
- -Öğretiminiz okul ortamından nasıl etkilenir?
- Ortam ile ilgili sınırlılıklarınız nelerdir?
- -Eğitim programınızın amacı nedir?
- -Genel İngilizce öğretiminin amacı nedir?
- -Ortamla ilgili bilginiz öğretiminizi etkiler mi? Nasıl etkiler?

Öğretmen

-Kendinizi öğretmen olarak nasıl görüyorsunuz?

-kendiniz ile ilgili sahip olduğunuz bilgi öğretiminizi nasıl etkiler?

-Öğretmenlik deneyiminiz öğretiminizi nasıl etkiler?

- Öğretmen olarak hedefiniz nedir?

- Kendiniz ile ilgili sahip olduğunuz bilginin kaynakları nelerdir?

-Yabancı dil öğretiminde güçlü ve zayıf yanlarınız nelerdir?

-Bir İngilizce öğretmeninin ingilizce bilmesi ne anlama gelir?

-Öğretmenlikte ilk gününüz ile şu anki halinizi karşılaştırabilir misiniz?

Sınıf içi uygulamalar

-Sahip olduğunuz farklı bilgi alanları sınıf içi uygulamalarınızı nasıl etkiler?

-Blginizi nasıl uygulamaya koyabilirsiniz?

-Sınıf içinde verdiğiniz kararlar bilgi alanlarınızdan etkilenir mi? Örneklendirebilir misiniz.

## **Appendix C: Likely Interview questions (English)**

Related to demographic information, professional background experience, preferences of teachers

-How old are you?

-When did you start to learn L2?

-What is your qualification in ELT?

-Which university/department did you finish?

-When did you graduate?

-How long have you been teaching English?

-In which institutions have you worked?

-How long have you been teaching at your current institution?

-Have you ever been abroad? Which country? How long did you stay there? For what purpose?

-How many hours do you usually teach a week?

-Which levels have you taught?

-How many different courses have you taught? What are they?

-How many students do you have for each course?

- How do you prefer to improve yourself professionally?

-What kinds of teachers did you choose to be role-models for you when you were a student?

-How did your education affect the way you teach today?

-What may be your most influential life experiences for making you such an English teacher today?

Related to Content knowledge

-What domains of CK are most important for you? Why?

-How did you get your CK?

-How is your teaching affected by your content knowledge?

Related to Pedagogical knowledge

-What areas of PK do you find important? Why?

-How do you manage the classroom?

- What are the sources of your general pedagogical knowledge?

-How is your teaching affected by your pedagogical knowledge?

Related to Curriculum knowledge

-What is necessary here?

-How does your curriculum knowledge affect your teaching?

-What is your opinion about the role of coursebooks?

-What is your opinion about the use of coursebooks assigned?

- What resources are available for teaching?

-How do you choose the textbooks for your course?

- Do you need to supplement your teaching? What different materials do you use/need?

-Do you plan for lessons?

-What are the origins of your knowledge of curriculum?

Related to PKC

-What knowledge is important for teaching a foreign language?

-What are your strengths/ weaknesses in teaching the four skills/ vocabulary/ grammar/

pronunciation?

-How do you use your knowledge of EFL pedagogy in your teaching?

-What are your sources of PCK?

Related to Students

-What do you know about your students? Can you describe them?

-What language do students prefer?

-How does this knowledge influence your practices?

-How do you motivate your students?

-How can you create a relaxed atmosphere in class?

-How can you establish good relations with your students?

-What may be some most frequently experienced difficulties students have in learning

English?

-How do you deal with student disruptive behavior?

-Do you think students have some misconceptions about learning English?

-What are the sources of knowledge of your students?

-What is their goal?

Related to Context

-What is necessary here?

-How did you get this knowledge?

-How is your teaching affected by the context/your school environment?

-What are your contextual constraints?

-How can you characterize the goal of your institution?

-What is the goal of teaching general English?

-What is the effect of your knowledge about context on your teaching? How

Related to the teacher

-How do you view yourself as a teacher?

-How is your practice influenced by knowledge about yourself?

- Does your experience as a teacher influence your practice? Explain

-What is your goal as a teacher?

-What are your sources of knowledge of self?

- What may be your strengths and weaknesses in teaching the foreign language?

-What does it mean for an instructor to know English?

-Can you compare the first day of your teaching career with where you are right now? Related to Teaching practice

-How do your different knowledge domains affect your teaching practice?

-How can you implement your knowledge into your practices? Give examples.

-Are your classroom decisions influenced by what you know? (adapted from Abdelhafez, 2010& Lin, 2010;)

#### **Appendix D: Consent Form**

This research project is conducted by Burcu BAŞAK COŞKUN for her Ph.D dissertation named "Knowledge Base of Novice and Experienced EFL Instructors at Turkish Universities' at Çanakkale Onsekiz Mart University . The aim is to accumulate information about knowledge base of EFL instructors. Participation is voluntary. No money will be given to participants. One can leave on any occasion without penalty. One also has the chance to refuse to answer interview questions. You will be asked various questions. . The interview lasts roughly 30-45 minutes. The researcher will not identify anyone by name anywhere and confidentiality will remain secure. This research is reviewed and approved by the Ethical Committee.

I have read the details about the study and I willingly engage in this study.

Signature

Date

Name

For further information, please contact:

Burcu BAŞAK COŞKUN 05326559171 / bburcubasak@hotmail.com

#### **Appendix E: Profiles of the participants included in the interviews**

### Interviewee 1

He is 36 years old. He graduated from ELT department of Gazi University in 2003. He finished her MA in ELT at Trakya University. He is now struggling to finish his PhD thesis at a state university. He has 14-year experience. He teaches 24-28 hours week. He has given a number of courses including must foreign language courses given for all departments and ESP courses as well courses given in the ELT department such as contextual grammar, vocabulary knowledge, L2 acquisition, language teaching methods, language skills, materials evaluation and adaption, linguistics, Turkish history of education and comparative education. Interviewee 2

She is 36 years old. She is a graduate of ELT Department of a state university. She finished her M.A in ELT at the same university .Now she is working on her PhD thesis in ELT at a state university. She has 11-year-experience at a state university. She teaches about 40 hours of English to learners of different levels of English. In her classes she has about 25-65 students.

#### Interviewee 3

He is 35 years old. He started learning English at high school. He has 10-year-experience. He is a graduate of ELT Department. and finished his MA in ELT. He has been an instructor at university for 10 Years. Before becoming an instructor, he worked at different language courses and colleges. He teaches 25 hours a week at university. He gives reading& writing and listening & speaking courses for A2, B1 and B2 levels. In each class, he has 25 students in the preparatory class.

She is 44 years old. She graduated from ELT department, Dokuz Eylül University. She has 23-years experience. She worked at different high schools. She is currently teaching at the School of Foreign Languages at a state university and giving grammar, writing, listening and speaking course at elementary and intermediate levels. In her classes she has about 23-24 students.

#### Interviewee 5

She is 40 years old. She has 19-year experience. She is a graduate of ELT. She completed her M.A and Phd in ELT. Right now she is working at ELT department at a state university. Previously, she worked at 2 other state universities in Turkey. She has given a number of courses so far including general English courses or skills courses and she has taught all levels. Interviewee 6

He is 44 years old. He has 21-year-experience. He is a graduate of ELT department and he completed his MA in ELT. He worked at a high school at the Ministry of Education when he first started the profession. He gives various courses including general English, reading, writing, grammar, translation and literature. He believes he has learned a lot while teaching various students from different backgrounds and in different institutions.

#### Interviewee 7

She is 27 years old. She started learning English in primary school. She completed her undergraduate education and MA in ELT. She has 3-year-experience. She works at the School of Foreign Languages at a state university. She teaches general English for about 24 hours a week. She has not stated graduate studies yet but she prefers to improve herself professionally by mostly attending conferences, reflecting on her classroom practices and getting help from colleagues. She views herself inexperienced but eager to become a more effective teacher.

#### Interviewee 8

He is 26 years old and started to work as an instructor 3 years ago. He is a graduate of ELT department. He has taught four skills courses and main courses so far. He thinks he needs more guidance in his profession but he is willing to improve himself professionally. Therefore, he often attends conference, reads a lot in his field and gets help from more experienced colleagues. He describes herself energetic, curious, helpful, organized and flexible as a teacher.

#### Interviewee 9

She is 25. She just has 2-year-experience. She is a graduate of ELT department of a state university. She says she loves being an English teacher as it was her dream even when she was a small child. Therefore, she is very energetic and motivated. She is eager to learn more and more. She dreams of going abroad one day for her occupation. She describes herself as being still a learner of language.

Interviewee 10

She is 25 and has 3-year-experience. She is a graduate of ELT department. She works at the School of Foreign Languages. She attended a teacher training course for 2 months in the UK. She has taught A1 and A2 levels so far. She describes herself as inexperienced, knowledgeable in ELT ,friendly and sometimes anxious in class because of the fear pf unexpected issues.

#### Interviewee 11

She is 27 years old. She has undergraduate and masters degrees in ELT. She has 4-year experience. She has given various courses including integrated skills courses for A1, A2 and B1 levels. She describes herself as a cooperative teacher since she easily communicates with her colleagues whenever is needed. She is also in favour of task based teaching and learning.

# Interviewee 12

He is 28 and has 3-year experience. He graduated from the ELT department. He teaches about 20 hours a week. He relies on his content knowledge and thinks his teaching skills will improve as he gets more experienced in his profession.



## Appendix F: Sample interview with an experienced instructor

R. How old are you?

Instructor A. 36

R. When did you start learning English?

A. 12 Years old

R. What are your qualifications in ELT?

A.undergraduate/ graduate/ phd /thesis) gazi elt (2003)/ Trakya elt/ Çanakkale elt

R. how long have you been teaching English/18 years

A. I Worked in Ministry of Education /private teaching institutions/ publishing houses/in all

departments at university/ in the ELT DEPARTMENT FOR 10 years

- R. Have you ever been abroad?
- A.Abroad Bosnia, Greece, Bulgaria
- R. How many hours do you teach a week?

A.Teaching hours 24-28 hours . in the past gave up to 54 hours a week/

R. What type of courses do you give?

A. must foreign language courses / English for specific purposes courses/contextual grammar/ vocabulary knowledge/language acquisition/ language teaching methods/ language skills/ materials evaluation and adaptation/linguistics/ Turkish history of education/ comparative education/

- R. Which levels have you taught?
- A. Levels from elementary to advanced
- R. How many students do you have in each class?
- A. Number of students 400 (totally) 40-60 students in each class
- R. How do you improve yourself professionally?

I A.I am always in contact with my colleagues from other universities. I have learned a lot from my colleagues working in private universities. I try to attend in service training programs. I may not say I have learned a lot from academic conferences, but I think I improved myself a lot attending conferences organized by publishers. I like reading in general. For instance I read Functional Grammar last week.

R. Is it because you are curious about it?

-Yes, I am curious about it.

R. So that helps you improve yourself professionally and academically?

-Ok. Did you have some favorite language teachers when you were a student? English language teachers? Why did you like them?

-Himm, I classify them and I tell them to my own students as well. People choose their English teachers for some reasons. First, they have very good speaking skills. That means his /her English is good. Some say the teacher has very good grammar knowledge. S/he may be a really good YDS (Higher Education Council language exam) teacher. But now, when we look at our children-, when they come home, they say today we played such a game , I liked it a lot. This means now a student likes his/ her teacher methodologically. As for my favourite teachers, they were the ones whom I chose as a model for their grammatical knowledge.

R. You believed their knowledge of grammar was good.

-Well, in fact, we may say source of information. That is, whom I liked were teachers who were sources of information.

R. I see. What about your educational background? How is your teaching affected by your previous education?

-It is affected. I definitely find it successful.

R. You find the education you got successful.

-yes, in the past I found some parts unnecessary, but now I find it necessary (good). And I see it in my reflections.

R. Ok. What made you become an English teacher? As far as you remember. Why did you want to be an English teacher?

-Hımm, I like the teaching profession and I like English.

R. You like both

A. yes, I do. And the love of English

R. I see. Then, you have no role models.

A. No.

R. Ok. Let's talk about content knowledge. What is the most important component of CK for an English teacher?

A. It depends. For me, there is no degree of importance. It depends according to the level and the age group of the teacher's students. For instance, for a teacher of beginner young learners , grammar is not important.

R. Of course, What about you? When you consider yourself, what content knowledge do you consider important when you teach general English?

A. For me, it is grammar and vocabulary knowledge.

R. Does your content knowledge affect your teaching?

A. Yes, definitely. Because what one gives importance to changes the flow of the lesson. For example, one who got 100 from the YDS exam spends more time on grammar. A person who has good speaking skills spends more time on speaking activities in the lessons.

R. I see.

A. of course that does not mean the person will be a good teacher.

R. Then that means what one is interested in affects his/her classroom practice.

A. Exactly.

R. Ok. How did you get your content knowledge? From your under graduate study or other sources?

A. No, only from my own effort.

R. What kind of effort?

A. First, you 've got to love your job. Second, curiosity. No, first comes curiosity. Then, love. And reading a lot. Finding sources. For example, I have a great library.

R. Wow, perfect.

So you emphasize content knowledge and individual effort here.

A. Yes. When others buy house or car, I created my library.

R. Books related to your interests?

A. Exactly. I have about 5000 books.

R. Excellent.

A. Yeap. Original.

R. What about content knowledge such as classroom management or testing, general teaching principles? What knowledge do you consider important in PK?

A.I think classroom management.

R. You believe classroom management is the most important

A. yes.

R. Why?

A. Some courses such as Introduction to the Teaching Profession include theoretical knowledge, but we also have to put forward practical knowledge. As for language teaching...

R. Maybe we may discuss it later on.

OK. How do you manage the classroom?

A. It depends according to your students. For instance, I give courses to ELT students and I have few classroom management problems.

#### R. I see

A. I try to guide my students. If the teacher is there as the source of information, students listen to you. In this way, I try to make my students respect me. Classroom management is not related to saying 'stop, don't do that, listen to me'

R. OK. How did you get your pedagogical knowledge?

A. Curiosity.

R. Your undergraduate courses?

A. No. Just curiosity.

R. Again your individual effort to improve yourself.

A. Exactly.

R. What about knowledge of curriculum? What kind of curriculum knowledge do you have? Do you have a role in preparing your curriculum?

A. For instance, in the ELT department, we changed the order of some of the departmental courses. Not the content but the order of some courses were changed. I suggested changing the content of some courses, but that is not easy. The administration does not prefer it. However, some universities add some courses for the ELT department. For example, there is a course named Study Skills for the first year students in one university. (how is vocabulary learned, how can we use dictionaries, what are reading techniques, and lastly APA style and how is an assignment submitted. Then a student gives appropriate assignments. This results from necessity. Apart from that, In some other universities, Introduction to Methodology course is given.(classroom methodology, how to give an instruction,...) Apart from that, Teaching Grammar is a separate course in some universities. It must be a separate course. Because teaching 4 skills in addition to grammar and vocabulary considering student presentations is not easy in two semesters. Therefore, some people see that the most difficult is grammar and include one course for Teaching Grammar.

R. What about coursebooks? Do you select your own coursebooks?

A. I determine my own coursebooks considering the level of my students.

R. Do you make lesson plans?

A. I don't as I have given the courses for a long time. However, if it is a new course I write a draft. I search how other colleagues deal with the same course. Then, I make decisions. Here, the most important thing is our resources. If you do not have necessary resources, you may fail but if you have appropriate resources, that will make the lesson effective.

R. Then you believe the resources we make use of for our students direct us.

A. Yes, exactly. They affect our teaching. Because my professional development was also greatly influenced by my resources. And unfortunately people have shortage of books as some teachers do not prefer to spend money on books. Sometimes they want publishers to give them books. But they give books to teachers but not to many. As a teacher, it is one's own responsibility to find necessary books for one's lesson.

R. I see. Publishers do not meet all the demands of the teachers

What about pedagogical content knowledge? What components of this knowledge are most important for you?

A. There is no difference in terms of importance. The teacher gives higher priority to what s/he is most skilled in. But as I use a coursebook, that coursebook gives adequate importance to each component of English

R. In an integrated way?

A. Yes but some teachers neglect writing and speaking parts. That means the teacher does not want to deal with these skills. They may not find themselves competent.

R. What about you? When you consider yourself?

A. Teaching grammar is my strength whereas teaching speaking is my weakness.

R. Ok. That's how you reflect on yourself.

R. yes.

R. Ok. How did you get your PCK?

A. My undergraduate education and in-service training.

R. Only these two

A. Yes

R. Ok, now your students. What kind of knowledge do you have of your students? Such as age, interests.. What kind of knowledge do you have of your students in general?

A. I know a little about their interests. (as far as I observe) Social media, technology, games especially for male students, computer games.

R. How did you get this knowledge?

A.From their speaking exam. When they start talking, we learn a lot about their interests. Generally they talk about social media, music and games.

R. Female students?

A. Music, boyfriends,

R. Relationships

A. yes,

R. What language do your students prefer? Turkish? English? For the courses?

A. It depends according to the courses.

R. Himm, Students from different departments?

A. ELT students prefer English. Other students taking ESP cources feel secure when language of instruction is Turkish. You need to give the Turkish equivalent of terms.

R. Ok. Does the knowledge you have of your students affect your classroom practices?

A. yes. It affects which activity is more effective for our students. It even affects the duration

of the exams. You know how much time your students need for different parts of the exam.

R. How do you get this knowledge?

A. Experience.

R. yes. How do you motivate your students?

A. At the beginning of the academic year, I motivate them telling them the importance of the course, why the course is a must for them. I start the lesson mentioning the necessity of the course. I do this each semester.

R. How do you create a relaxed atmosphere in your classes? So that the students feel more motivated ?

A. There must be a relaxed atmosphere for general English courses but for some courses where teaching method is usually lecture, there is no need to create such a relaxed atmosphere. They need to catch me.

R. Ok. Good relations with your students? How do you establish this?

A. It is related to experience. In the past I had good relations with all my students. BUT with experience I have realized that I need to be more strict with first and second year students. Otherwise, it is difficult to make them fail. After I have more knowledge of my students and they have of me, we establish good relations. That is, after we spend more time together, doing activities. When I give them feedback individually in my room, they get happy. They think this teacher spares time for you and respect you. Maybe they make comparisons among teachers.

R. I see. You respect students, spend time for them

A. Yes, we may say spending time.

R. OK.

Any disruptive behaviors?

A. Yes, warning first. I say that I am in class for them. However, this saying may not be successful for all students especially for those taking general English.

R. What are the most important problems students have while learning English?

A. Him, the profile of our students have changed greatly. Nowadays Our students have good speaking skills but terrible grammar. In the past, female students were very good at English. They are generally hardworking whereas male students are lazy. Male students are still lazy but their English is far beyond their female friends. You cannot believe it. You may think they have learned it in the USA. And they have learned this English just from games.

R. they can speak English?

A. Incredibly. They are very good but they have problems of accuracy. For instance, one says 'had went' They have grammar problems. They make errors related to tenses. So now their grammar is worse than their speaking.

R. Yes, I have observed the same. Do students have some misconceptions about learning English?

A. yes, Some have learned English with games. They are not motivated. They don't know how to learn the language.

R. What are your students' general aims for learning English?

A. In fact, they don't like English. Some don't like being in their departments. They are not motivated.

R. How do you get knowledge of your students?

A. Observation and one -to one talk. Usually conversation.

R. What are your student's goals in learning a foreign language?

A. They have no goals, no aims, just to finish university and get a job.

R. Ok. Does your context affect your teaching?

A. It affects the choice of coursebooks. The vision of the school affects our teaching. For instance, I suggest courses for students but they are not accepted

R. What are your contextual constraints?

A. The school should be open to new ideas, teachers should attend in-service training. I also sometimes need such training since I may need to attend a methodology course and refresh myself. In this way, I remember that method and begin to use it in my classes. Some teachers know a lot of things in terms of methodology but they don't apply their knowledge. They have to refresh themselves. Not only students but also teachers need to be motivated. Low motivation can be overcome by courses.

R. By attending courses?

A. Exactly.

R. How do you evaluate yourself as a teacher?

A. Still inadequate.

R. It is nice to comment on yourself in this way. Only inadequate?

A. I am open to learning. If my previous student knows more than me, s/he is now my teacher. I may learn from my student. Meanwhile, among your contextual constraints are people criticizing you for example for taking a course to improve yourself. One may prefer to learn and improve oneself rather than doing nothing.

R. Are your classroom decisions affected by your knowledge?

A. I bring with me a number of activities. but students are now interested. Then I ask then do you want to learn English or just pass the exam for this course? If they say we just want to pass the exam, Them I do whatever they like for some groups of students.

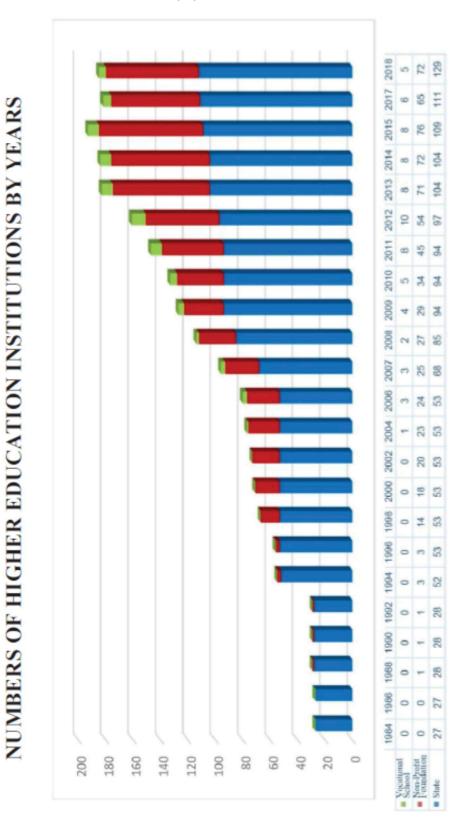
R. In general, what does it mean for an English teacher to know English?

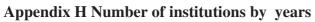
A. Content knowledge, PK, PCK, knowledge of students, knowledge of context, knowledge of curriculum

R. I see. Thank for your invaluable contribution.

# Appendix G Knowledge types found in the original questionnaire

	Present Study (Knowledge Types)	
	Knowledge of Teaching Methodology:	
	<ul> <li>Teaching Reading</li> </ul>	
	<ul> <li>Teaching Writing</li> </ul>	
	<ul> <li>Teaching Listening</li> </ul>	
	<ul> <li>Teaching Speaking</li> </ul>	
	<ul> <li>Teaching Grammar</li> </ul>	
	<ul> <li>Teaching Vocabulary</li> </ul>	
	Curriculum Knowledge:	ł
	Curriculum Design	
	Syllabus Design	
	<ul> <li>Curriculum Evaluation</li> </ul>	
	Lesson Planning	
	Knowledge of Learners:	
Knowledge of	Learner Sensitivities & Learning	
Teaching	Styles	
	Classroom Organization	
	Nonverbal communication in L2	
	Learning	
	Language Testing	
	<ul> <li>Teaching English in International</li> </ul>	
	Contexts	
	Knowledge of Resources:	•
	Computer assisted Language	
	Learning	
	E-learning	
	<ul> <li>Material Development</li> </ul>	
	<ul> <li>Designing Tasks</li> </ul>	
	<ul> <li>Adult Language Learning</li> </ul>	
	Knowledge of Contextual Factors:	1
	<ul> <li>English as a Global Language</li> </ul>	
	World Englishes	
	<ul> <li>Bilingualism &amp; Multilingualism</li> </ul>	
	<ul> <li>Intercultural Communication</li> </ul>	
	English Literature	
	EAP/ESP	
	Discourse Analysis	
	Sociolinguistics	
Knowledge of	Knowledge of Language Components:	
Language	Phonology	
	Morphology	
	Grammar	
	<ul> <li>Pragmatics</li> <li>Word Meaning &amp; Use</li> </ul>	
	Knowledge of Language Learning Theories:	
	Second Language Acquisition	
	<ul> <li>Second Language Acquisition Theories</li> </ul>	
	<ul> <li>First Language Acquisition Theories</li> </ul>	





**Appendix I: Permission for the questionnaire** 

making use of a number of instruments. There will be semi-structured interviews and observations with both novice and experienced teachers

I came across your article named A Quantitative Investigation of ESL Teacher knowledge in Australian Adult Education (February 2015) You developed a likert scale questionnaire identifying the types of knowledge practicing teachers value for their practices. I definitely find the questionnaire very useful.

I wonder if I may have a chance to make use of the questionaire you have developed in my PhD thesis?

In addition, I would love to work with you somehow on teacher knowledge if you may give me a chance.

Thank you very much Yours

Burcu BAŞAK COŞKUN



Khatereh Yazdanpanah 8.01.2018 Dear Burcu, Hope this email finds you well. I sent you my questionnaire a while ago but

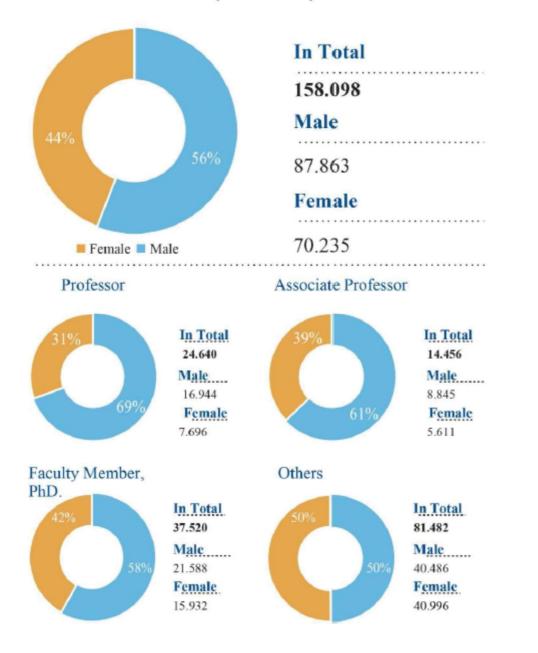


Burcu BASAK CO... 8.01.2018 Alıcılar: Khatereh V

r

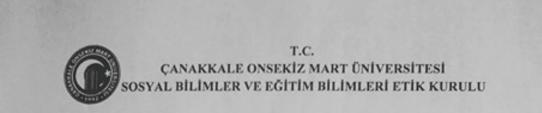
Dear Yazdanpanah I received your e mail. Thank you very much indeed.

8 Oca 2018 08:52 tarihinde "Khatereh Yazdanpanah" <khatereh ya 📣 npanah @ Onail.com> 🖓 dı:



(2017 - 2018)

## **Appendix K. Ethical form**



# PROJE/ARAȘTIRMA DEĞERLENDÎRME SONUÇ RAPORU

Toplantı Tarihi	08. 12. 2016	
Toplanti Sayisi /	08	
Başvuru protokol numarası	2016/24	
Başvuru tarihi	11.11.2016	
Proje/araștırma bașlığı	Knowledge Base of Novice and Experinced EFL Instructors at Turkish Universities	
Proje/araștırma yürütücüsü	i Burcu BAŞAK COŞKUN	
Karar	Bilimsel araştırma etik kurallarına uygundur.	
Açıklamalar		

aportor/Üye

Doç. Dr. A zan DEMIR Üye

Yrd. Doç. Dr. Muzaffer ÖZDEMİR Başkan Yardımcısı

Yard. De Hakan

JÖRÜN Üye

Doç. Dr. Gökhan GÖKULU

Üye