



HACETTEPE ÜNİVERSİTESİ
EĞİTİM BİLİMLERİ ENSTİTÜSÜ

Department of Foreign Language Education
English Language Teaching Program

AN INVESTIGATION OF METALINGUISTIC KNOWLEDGE OF PRE-SERVICE
TEACHERS OF ENGLISH IN A TURKISH CONTEXT

Betül MUTAF

Master's Thesis

Ankara, 2019

With leadership, research, innovation, high quality education and change,

To the leading edge... Toward being the best...



HACETTEPE ÜNİVERSİTESİ
EĞİTİM BİLİMLERİ ENSTİTÜSÜ

Department of Foreign Language Education
English Language Teaching Program

AN INVESTIGATION OF METALINGUISTIC KNOWLEDGE OF PRE-SERVICE
TEACHERS OF ENGLISH IN A TURKISH CONTEXT

TÜRKİYE'DEKİ İNGİLİZCE ÖĞRETMEN ADAYLARININ ÜST DİL BİLGİLERİNİN
ARAŞTIRILMASI

Betül MUTAF

Master's Thesis

Ankara, 2019

Acceptance and Approval

To the Graduate School of Educational Sciences,
This thesis entitled "An Investigation of Metalinguistic Knowledge of Pre-Service Teachers of English in a Turkish Context" has been approved as a thesis for the Degree of **Master** in the **Program of English Language Teaching, Foreign Language Education** by the members of the Examining Committee.

Chair Prof. Dr. İsmail Hakkı ERTEN



Member (Supervisor) Assist. Prof. Dr. Ufuk BALAMAN



Member Assist. Prof. Dr. Pelin İRGİN



This is to certify that this thesis/dissertation has been approved by the aforementioned examining committee members on 18/06/2019 in accordance with the relevant articles of the Rules and Regulations of Hacettepe University Graduate School of Educational Sciences, and was accepted as a **Master's Thesis** in the **Program of English Language Teaching** by the Board of Directors of the Graduate School of Educational Sciences on/...../.....

Prof. Dr. Ali Ekber ŞAHİN
Director of Graduate School of Educational Sciences

Abstract

This study mainly aimed at investigating metalinguistic knowledge (MLK) of pre-service teachers of English. More specifically, it sought to explore MLK of pre-service teachers of English, the effect of gender and grade levels on their MLK, and their awareness of MLK. The study adopted a mixed methods research design. The quantitative data were collected from 120 pre-service teachers of English studying at Hacettepe University in 2017-2018 academic year spring term and 2018-2019 academic year fall term through Metalinguistic Knowledge Test used by Alderson and Horák (2010). The questions in the test intended to test the grammatical features encountered in the pedagogical grammar content of English language. The results of the quantitative data analysis indicated that the majority of the pre-service teachers of English had moderate level of metalanguage. While any significant effect of gender variables was not observed, grade level differences indicated a significant effect on their metalanguage. The qualitative data were collected from 18 pre-service teachers of English through semi-structured interviews and analyzed through thematic analysis. The results presented that almost none of the participants was well aware of the metalinguistic knowledge as a concept. When the participants were requested to express their self-perceptions on this concept, most of them stated that they did not think they had a sufficient level of MLK and that they needed further training on this domain. Besides, they added that internalizing metalinguistic knowledge could be really essential for English language teachers and it could make a great contribution to their grammar teaching practices.

Keywords: metalinguistic knowledge, teacher training, preservice teachers of English, grammar teaching, pedagogical grammar

Öz

Bu çalışma temelde hizmet öncesi İngilizce öğretmenlerinin üst dil bilgisini ölçmeyi amaçlamaktadır. Daha belirgin olarak, hizmet öncesi İngilizce öğretmenlerinin üst dil bilgilerini, cinsiyet ve sınıf düzeylerinin etkisini ve onların üst dil bilgisi konusundaki farkındalıklarını araştırmayı amaçlamaktadır. Bu çalışma karma yöntem yaklaşımını benimsemiştir. Çalışmanın nitel verileri, 2017-2018 bahar dönemi ve 2018-2019 akademik öğretim yılının güz döneminde Hacettepe Üniversitesi'nde eğitim gören 120 hizmet öncesi İngilizce öğretmenine, Alderson ve Horák (2010) tarafından kullanılan Üst Dil Bilgisi Testi uygulanarak elde edilmiştir. Testteki sorular, genellikle pedagojik dil bilgisi içeriğinde karşılaşılan dil bilgisi terimlerini test etmeyi amaçlamaktadır. Elde edilen nitel verilerin analiz sonuçları hizmet öncesi İngilizce öğretmenlerinin orta seviyede üst dil bilgisine sahip olduklarını göstermiştir. Katılımcıların üst dil bilgi seviyeleri üzerinde cinsiyet değişkenlerinin anlamlı bir etkisi gözlenmezken, sınıf seviyesi farklılıklarının anlamlı derecede etkisi gözlenmiştir. Araştırmanın nitel kısmında, veriler 18 hizmet öncesi İngilizce öğretmenleriyle yapılan yarı-yapılandırılmış görüşmelerle elde edilmiştir. Elde edilen veriler tematik analiz metoduyla analiz edilmiştir. Sonuçlar, ilk etapta, hemen hemen hiçbir katılımcının üst dil bilgisi kavramına dair tam anlamıyla farkındalığı olmadığını göstermiştir. Katılımcılara üst dil bilgisi hakkında bilgi verilip bu kavram hakkındaki düşüncelerini açıklamaları istendiğinde, nicel verilerle tutarlı sonuçlara ulaşılmış ve katılımcılar yeterli seviyede üst dil bilgisine sahip olmadıklarını düşündüklerini ve bu bilgi alanına yönelik daha fazla öğretime ihtiyaç duyduklarını belirtmişlerdir. Ayrıca, üst dil bilgisini içselleştirmenin İngilizce öğretmenleri için gerçekten gerekli olabileceğini ve dil bilgisi öğretimi uygulamalarına büyük katkı sağlayabileceğini de eklemişlerdir.

Anahtar sözcükler: üst dil bilgisi, öğretmen eğitimi, hizmet öncesi İngilizce öğretmenleri, dilbilgisi öğretimi, pedagojik dilbilgisi

Acknowledgements

First and foremost, I would like to express my sincerest gratitude to my supervisor Assoc. Prof. Dr. Hüseyin ÖZ for his valuable guidance, encouragement and endless support during this process. Without his persistent help, this thesis would not have been possible. Although I defended my thesis without him because of his unexpected demise, I really feel and will always feel honored and privileged to have worked with him.

I am also grateful to Assist. Prof. Dr. Ufuk BALAMAN for his support, suggestions and guidance both before and during the thesis defence process. In addition, I owe special thanks to the committee members Prof. Dr. İsmail Hakkı ERTEN and Assist. Prof. Dr. Pelin İRGİN for their valuable feedback and contributions to my thesis.

I would also like to thank my director Assoc. Prof. Dr. Murat HİŞMANOĞLU and my colleagues at Uşak University for their great encouragement and support. My special thanks also go to the Assist. Prof. Dr. Erhan AYDIN for his invaluable contribution and continuous support in the preparation of the present study. All the corrections, feedbacks and proofreads done by them made this process easier.

I would like to give my appreciations to my friends Merve ÖNDER BALCIOĞLU, Sema DURAN and Tülin GAZİ as they have been by my side whenever I need help during this challenging journey.

I wholeheartedly thank my family. I am deeply grateful to my mother Füsün MUTAF, my father Hayati MUTAF, my sisters Banu and Buket and lastly my dearest grandmother Neriman İÇLİ for their unconditional love, support and never-ending confidence in me throughout my life.

Thanks also to all pre-service teachers in the ELT program at Hacettepe University for participating in this study.

To my family

To Assoc. Prof Dr. Hüseyin ÖZ

Table of Contents

Abstract	ii
Öz	iii
Acknowledgements	iv
Table of Contents	v
List of Tables	vii
List of Figures	viii
Symbols and Abbreviations	ix
Chapter 1 Introduction	1
Statement of the Problem	3
Aim and Significance of the Study	4
Research Questions	4
Assumptions	5
Limitations	5
Definitions	6
Chapter 2 Literature Review	8
Metalinguistic Knowledge and Relevant Concepts	8
Principal Components of MLK for L2 Teachers	10
Is MLK important for L2 teachers? Why?	11
Assessment of MLK	20
Can L2 Teachers Improve Their MLK? How?	21
Previous Studies Regarding Metalinguistic Knowledge in National and International Contexts	23
Chapter 3 Methodology	30
Introduction	30
Research Design	30
Setting and Participants	35
Data Collection Instruments	37

Data Collection Procedure and Analysis	41
Chapter 4 Findings	47
Introduction	47
Analysis of the Quantitative Data	47
Analysis of the Qualitative Data	52
Chapter 5 Discussion, Conclusion and Suggestions	62
Introduction	62
Discussion of the Results	62
Implications of the Study	69
Suggestions for Further Research	71
Conclusion	72
References	73
APPENDIX-A: The Metalinguistic Knowledge Test	84
APPENDIX-B: Permission for the Use of the Test.....	97
APPENDIX-C: Interview Questions in English.....	98
APPENDIX-D: Interview Questions in Turkish.....	99
APPENDIX-E: The Test of Metalinguistic Knowledge Consent Form.....	100
APPENDIX-F: Research Interview Consent Form.....	101
APPENDIX-G: Ethics Committee Approval	102
APPENDIX- H: Declaration of Ethical Conduct	103
APPENDIX-I: Thesis Originality Report.....	104
APPENDIX-J: Yayımlama ve Fikri Mülkiyet Hakları Beyanı	105

List of Tables

Table 1 <i>Demographic Data of Participants (N=120)</i>	36
Table 2 <i>Demographic Data of Interviewees (N=18)</i>	37
Table 4 <i>Data Collection Instruments</i>	41
Table 5 <i>Normality Values for Metalinguistic Knowledge Test</i>	45
Table 6 <i>Pre-service Teachers' Overall Performance in the Test</i>	48
Table 7 <i>Pre-service Teachers' MLK Levels with reference to Their Scores</i>	49
Table 8 <i>Correct Response Percentages regarding Parts of Speech and Grammatical Functions</i>	49
Table 9 <i>Descriptive Statistics of Dependent Variables for Grade Levels of the Participants</i>	50
Table 10 <i>ANOVA for Differences in MLK Levels based on Grade Levels</i>	51
Table 11 <i>Descriptive Statistics of Dependent Variables for Male and Female Participants</i>	52

List of Figures

<i>Figure 1.</i> Metalinguistic knowledge of L2 teachers (from Almarshedi, 2017(adapted from Ellis (2004), Berry (2009) and Andrews (1997, 1999a, 1999b, 2007))	11
<i>Figure 2.</i> The relationship between the components of L2 teacher's professional knowledge (from Andrews, 2003, p. 91).....	14
<i>Figure 3.</i> Notation system for mixed methods studies.....	32
<i>Figure 4.</i> Key themes that emerged from participants' interviews	53
<i>Figure 5.</i> Key themes that emerged from participants' interviews	58

Symbols and Abbreviations

- ELT:** English Language Teaching
- L2:** Second/Foreign Language
- LTC:** Language Teacher Competence
- MLK:** Metalinguistic Knowledge
- PCK:** Pedagogical Content Knowledge
- SLA:** Second Language Acquisition
- SRGI:** Selecting requested grammatical item
- TLA:** Teacher Language Awareness
- URGI:** Underlining requested grammatical item

Chapter 1

Introduction

A successful education system is a must for every country and this success can be achieved by having qualified teachers, highly-motivated students who are willing to learn and a systematic curriculum covering all needs. Among these three main components of education system, the teachers can be attributed as the most important one because they are the people who will train students and contribute to the development of a good curriculum by observing the requirements themselves in the field. Therefore, regardless of the field of education, the necessity of well-educated teachers in every sense is a crucial fact (Berry, Hoke & Hirsch, 2004). As this is the case, one of the prerequisites that should be considered for a qualified teacher is teacher knowledge.

According to Shulman (1986), teacher knowledge includes three main dimensions: subject matter content knowledge, pedagogical content knowledge and curricular knowledge. The other dimensions of it have been raised by him as general pedagogical knowledge, knowledge of learners, and knowledge of educational contexts. Pedagogical content knowledge (PCK) is regarded to have a distinctive place among these categories because it is a blending of content and general pedagogical knowledge that a teacher should benefit from most and make use of it substantially in an actual classroom environment. Also, he suggests that a teacher needs to know 'what is to be learned' and 'how it is to be taught' in order to perform teaching. Thus, it can be said that both 'knowledge of academic domain' and 'knowledge of how to teach that academic domain' are significant requirements that constitute teacher subject knowledge (Myhill, Jones & Watson, 2013).

Likewise, Thomas (1987) conducted studies on teacher education that specifically focus on concerning language teachers and states that language teacher competence (LTC) has two components which are language competence (i.e linguistic and communicative competence) and pedagogical competence. He also recognizes the role of language awareness (i.e explicit knowledge) as an aid for both of these competences.

Briefly stated, in order to be considered as a teacher who has 'language teacher competence', s/he must have knowledge of language, linguistics and

teaching as well as the ability to use them in a way associating with each other. As Cots and Arnó point out (2005), using the language competently is not enough for a language teacher, so being able to talk about language or teach the language by making it clear for learners are also the goals of language teacher education departments.

Based on Shulman's taxonomy above, Myhill et al. (2013) regard teachers' knowledge of academic domain including explicit grammatical knowledge as 'teachers' metalinguistic content knowledge' and their knowledge of how to teach as 'metalinguistic pedagogical content knowledge'. While both of these components are that much important as aforementioned before, the studies aiming to increase the quality of language teaching have been generally centered upon teachers' pedagogical content knowledge. Therefore, the importance of metalinguistic content knowledge has not been sufficiently valued and put on the back burner by ignoring the contributions that it could make to language teaching until the last decades.

Roehr and Gánem-Gutiérrez (2009) describe metalinguistic knowledge (MLK) as learners' explicit knowledge about the levels of language (i.e. syntax, morphology, lexicology, phonology) and pragmatic features of it along with the comprehension of the relations among these levels. The studies conducted by many applied linguists and language teaching scholars advocate that language teachers' metalinguistic knowledge, also referred as knowledge about language (KAL), contributes their teaching practices in many ways. Corder (1973) simply explains one of these ways with his statement that is "what we cannot describe we cannot teach systematically" (p.348). So, the teachers must have subject matter knowledge and, as Shulman (1987) refers, this subject matter is a 'nearly universal vehicle for instruction' (p.7). Besides that, with the help of MLK, language teachers can analyze how language works through the eyes of a learner and take the opportunity to diagnose and address the students' needs better, thus providing more useful and lucid 'explanations and representations for aspects of language' (Bartels, 2005, p.405; Popko, 2005). Moreover, the teachers draw on their metalinguistic knowledge to be able to make pedagogically appropriate decisions in language classrooms, as well (Kamler, 1995). All these contributions make language teachers feel more confident by allowing them to be able to speak about language expertly.

Considering the fact that teachers' lack of metalinguistic knowledge can be one of the problem facing points of teaching English language around the world, the metalinguistic knowledge level of English language teachers (i.e. knowledge about language) has also become the subject of research in the last decades.

Based on the aforementioned discussions, this chapter includes problem statement, aims and significance, assumptions and limitations of this research. Lastly, the definitions of the concepts that are used in the present study are given.

Statement of the Problem

The standard of achievement which cannot be reached in English language teaching in Turkey is a serious problem which can be attributed to many different reasons. However, when looked deeply into the matter, there are basically two main factors affect and/or be affected by these reasons: language learners and teachers.

The qualified language teachers have crucial role in determining the quality of English language education. Language teachers who do not have enough expertise in their field cause a decrease in the quality of language education because without proper and sufficient knowledge, they have trouble in teaching. Therefore, the failure to provide adequate and efficient English language teaching in Turkey leads to the existence of individuals who cannot learn English despite years of training.

Considering the habits that some Turkish teachers of English language have such as extensive use of Turkish in lessons and overdependence on textbooks and as a result, learners' exposure to non-interactive language learning environments, the present research dealt with the problem in terms of English language teacher education. It specifically investigated the metalinguistic knowledge levels of pre-service English language teachers as it is one of the important aspects of their content knowledge.

As it could be quite a lengthy process to measure teachers' metalinguistic knowledge levels in all respects and may require different measurement tools at the same time, this study handled the topic only in terms of grammar and grammatical terminology, regarded as a component of language teachers' subject matter knowledge (Andrews, 1999).

Aim and Significance of the Study

Measuring metalinguistic knowledge of pre-service English language teachers in Turkey can be one of the focal points that contribute to the quality of language teaching and as a result, this will have an effect on the quality of English language teaching in all levels of educational institutions. For this reason, the present study aims at exploring the pre-service English language teachers' MLK level and their perceptions about both their own MLK level and about the use of MLK in order to create suggestions for increasing the quality of English language education system in Turkey.

Addressing this issue may contribute to the improvement of English language teacher education in Turkey as its findings will provide valuable information for L2 educators and teacher trainers. Also, the results can help pre-service English language teachers to discover their weaknesses and strengths, raise their awareness of their current MLK and thus, to ensure that they will be better equipped for their future teaching practices. Moreover, the authorized people responsible for the curriculum of English Language Teaching department at universities can take the findings of this study into consideration while structuring the curriculum. Considering the revealed weak and strong points of pre-service English language teachers about English language, the curriculum can be planned and conducted accordingly. Lastly, this study enriches theoretical knowledge in the literature and demonstrates English language learning and teaching process mechanism in Turkish education system.

Research Questions

The present study sought to explore whether and what undergraduate students gained in MLK through the courses in linguistics and language studies during their education. In addition, it endeavored to see how variable their knowledge of metalinguistic terminology was in terms of grammar. In the quantitative part of the study, the participants' grade levels and gender variables were also taken into consideration. The study ended up with a qualitative study on participants' opinions about the use of metalanguage.

Based on the rationale of this study that is composed of problem statement, aim and significance, following research questions have been investigated in the present study:

1. How much metalanguage (as measured by a test) do the Turkish pre-service teachers of English have?
2. Is there a significant difference in MLK of Turkish pre-service teachers of English by grade level?
3. Is there a significant difference in MLK of Turkish pre-service teachers of English by gender?
4. Are Turkish pre-service teachers of English aware of their own metalinguistic knowledge?
5. What are their perceptions about the impact of their metalinguistic knowledge on their teaching practices as it relates to grammar?

Assumptions

This study is based on the following assumptions:

1. The measurement instruments used to gather data are valid and reliable enough.
2. The participants provided honest and sincere responses to the questions and statements in the measurement instruments.
3. Findings of this study reflected the real scores of participants' metalinguistic knowledge level.
4. The participants took at least one of the courses in the demographic information part of the test.

Limitations

One of the major limitations of this study is that it measures pre-service teachers' metalinguistic knowledge levels only by making use of an achievement test because of the time constraint. However, observing pre-service teachers during their teaching practices in order to affirm whether they use their MLK correctly or how much MLK they use in a teaching environment could provide more robust results in addition to the test results. So, making observations via designing role-plays or visiting pre-service language teachers during their

internship at schools could be beneficial in terms of investigating their metalinguistic knowledge/awareness in procedural dimension, as well since focusing solely on declarative language awareness may lead to procedural problems go unnoticed (Andrews, 2003).

Another limitation of the study arises from the sample size and context. This research was conducted on 120 participants from Hacettepe University. As the aim of the study is to measure the metalinguistic knowledge of Turkish pre-service teachers of English language and the results and discussions are correlated with the National Curriculum of English Language Teaching department in Turkey, it can be better to increase the size of the sample by including participants from different universities in Turkey. In that way, the reliability of the study can be increased.

Also, the lengthy of the instrument (the test) can be considered as a limitation regarding the possibility that test-takers felt bored and quit the test.

Lastly, the present study measured pre-service teachers' metalinguistic knowledge levels in terms of grammar and grammatical terminology in general without paying attention to the distinction between receptive and productive knowledge of terms and rules which are the sub-divisions of MLK. Measuring MLK levels regarding these sub-divisions might have enabled us to reach clearer results.

Definitions

The key terms used in this study and their definitions are presented below.

Language teacher competence: It refers to the competence required of the language teacher to be able to train learners as competent users of the language (Thomas, 1987).

Metalinguage: It refers to the language's itself that we employ to communicate or realize functions during the communication (Venuti, 2010).

Metalinguistic Knowledge (MLK): MLK is defined as the knowledge of the technical terminology used for labelling 'linguistic and socio-critical features' (Ellis, 2004). It is also used as the adjective form of the word 'metalinguage'.

Pedagogical Content Knowledge (PCK): It is teachers' understanding of how to organize, represent and adapt a particular subject in a way to address each learner in the learning environment by integrating their content and pedagogy knowledge (Shulman, 1987).

Pre-service Teachers: Pre-service teachers are student teachers who are enrolled in teacher-education programs.

Teacher Language Awareness (TLA): It refers to the knowledge 'of the underlying systems of the language' that teachers need to have to be able to teach effectively (Thornbury, 1997).

Chapter 2

Literature Review

Metalinguistic Knowledge and Relevant Concepts

The concept of metalinguistic knowledge, also called “language awareness”, “metalingual knowledge” or “knowledge about language” has been a salient topic in language teaching and learning over the last three decades. The reason of this interest in language awareness, which emerged in Britain 1970s, was the insufficient language performance of learners at schools (Andrews, 2007). Hawkins (1992) believes that learners’ progress in both mother tongue and second language is hindered when language awareness is not fostered.

Language awareness is defined by The Association for Language Awareness as “explicit knowledge about language, and conscious perception and sensitivity in language learning, language teaching and language use” (The Association for Language Awareness, 2019). The broader character of language awareness leads this concept to be used interchangeably with other related terms such as “knowledge about language”, “metalinguistic knowledge” or “metalinguistic awareness” (Andrews, 2007; Wach, 2014).

Ziętek and Roehr (2011) mention the broad scope of language awareness in their study and assert that it denotes similar meanings with the terms of “metalinguistic awareness” and “metalinguistic knowledge”. Renou (2001) defines metalinguistic awareness as “conscious knowledge of the formal aspects of the target language (e.g. grammar)” (p.264). According to Carter (2003) metalinguistic awareness reflects an enhanced consciousness of and sensibility to the structures and elements of language. Kuile, Veldhuis, Veen and Wicherts (2010) regard this term as the comprehension of the fact that language is a rule-based communication system and the necessity of these rules for the ability to use the language.

The term of metalinguistic knowledge is defined by Sharwood-Smith (2004) as a kind of knowledge on which we can get advanced by intentionally concentrating the complexities of language in a pretty much scholarly and expository style.

Ellis (2004) calls this concept as ‘metalingual knowledge’ and defines it as a type of knowledge that provides learners to define and label the linguistic and socio-critical characteristics of language with technical terminology. In Venuti’s definition, metalinguistic knowledge is used as the adjective form of “metalanguage” which refers to the language’s itself that we employ to communicate or realize functions during the communication (Venuti, 2010).

Regarding the linguistic area, MLK is seen as an artefact related to the language, focus of which is more or less on the linguistic description of the metalanguage, e.g. the terms created to define certain grammatical items (Myhill et. al., 2013). According to Jessner (2008) it is “the ability to focus on linguistic form and to switch focus between form and meaning” (p.277). It is defined by Roehr (2008) as follows “Metalinguistic knowledge has typically been operationalized as learners’ ability to correct, describe, and explain L2 errors” (p.173); then this definition has been extended to include ‘learners’ L1 language analytic ability’.

Metalinguistic knowledge can be sometimes used interchangeably with the term grammatical knowledge or it can cover anything that is related to the grammatical knowledge (Myhill et al., 2013). In this sense, MLK can be also associated with explicit grammatical knowledge which is defined by Roehr and Gánem-Gutiérrez (2009) as “knowledge that can be brought into awareness that is potentially available for verbal report, and is represented declaratively” (p.165). Explicit knowledge, which is conscious in nature, require individuals to engage in particular aspects of the stimulus and structures while implicit knowledge is the unconscious and natural acquisition process of knowledge about the underlying structure of a language (Ellis, 2009). In accordance with these definitions, Bialystok (1988) also approaches metalinguistic knowledge in consciousness base and characterizes it as learners' explicit knowledge about language while linguistic knowledge is defined by him as the knowledge about language which is acquired implicitly.

Although the terms *metalinguistic awareness* and *metalinguistic knowledge* are used interchangeably in some resources (e.g Andrews, 1999a; 2007; Roehr, 2008; Wach, 2014), Andrews distinguishes these two terms from each other emphasizing the distinction between possession of knowledge and using of such knowledge – ‘the declarative and procedural dimensions’ (Andrews, 1999a).

According to him, language teachers might have sufficient level of metalanguage as part of their explicit language knowledge; however, whether they use this knowledge appropriately is depend on their metalinguistic awareness. In other words, he points out ‘knowledge-in-action’ as ‘awareness’ and differentiate it from the just possession of subject matter knowledge (Andrews, 2007). Duff (1988) also remarks the difference between two terms and asserts that awareness must be corroborated with knowledge; otherwise it is not adequate.

As endeavored to explain so far, although many fields of language such as grammar, discourse, semantics and pragmatics can be attributed to language awareness, it is mainly associated with the grammatical system of the language (Andrews, 2007). Thus, it is specified in this manner in the present study.

Principal Components of MLK for L2 Teachers

A relevant review of literature indicates that “a combination of measures such as identification of speech parts, identification and correction of speech errors and verbalisation of rules” is needed in order to examine the metalinguistic knowledge (Alderson et al., 1997, Roehr, 2008, as cited in Gutiérrez, 2013, p.177). While these measurement results have been considered sufficient to determine the MLK competence (Alderson & Horák, 2010; Alderson& Hudson, 2013; Tokunaga, 2014) in most of the studies; there are some studies in which the results have been presented in more detail by focusing on knowledge of rules or/ and knowledge of terms, i.e. the components of the language, separately (Andrews 2007; Berry, 2009). Some of these studies have also included the analysis of receptive and productive knowledge, regarded as sub-divisions of the term and rule knowledge (Almarshedi, 2017).

As their names suggest, receptive knowledge means the possession of explicit knowledge; while productive knowledge necessitates the competence of producing grammatical terms and rules. Productive knowledge can be produced formally or informally. When language teachers use terminology while explaining a grammar rule or stating a grammatical term, they employ formal productive knowledge. On the contrary, sometimes these rules and terms can be explained without using terminology (i.e. informally).

The researchers conducting studies in this field have different views on the use of terminology in teaching environment. Berry (2009) and Andrews (1999a;

2007) consider that although language teachers must know the terminology, they do not have to use it while transferring the knowledge to learners because a grammar rule can be also explained without using terminology. Contrary to this view, Alderson, Clapham and Steel (1997) emphasize the significance of terminology and regard it as a necessary part of metalinguistic knowledge. These researchers state that “whatever explicit knowledge consists of, it must include metalanguage, and this metalanguage must include words for grammatical categories and functions” (p.97). Another group of researchers find a compromise between two views stated above and argue that whether to use terminology or not can be decided by taking into account the teaching context and learners’ needs (Almarshedi, 2017).

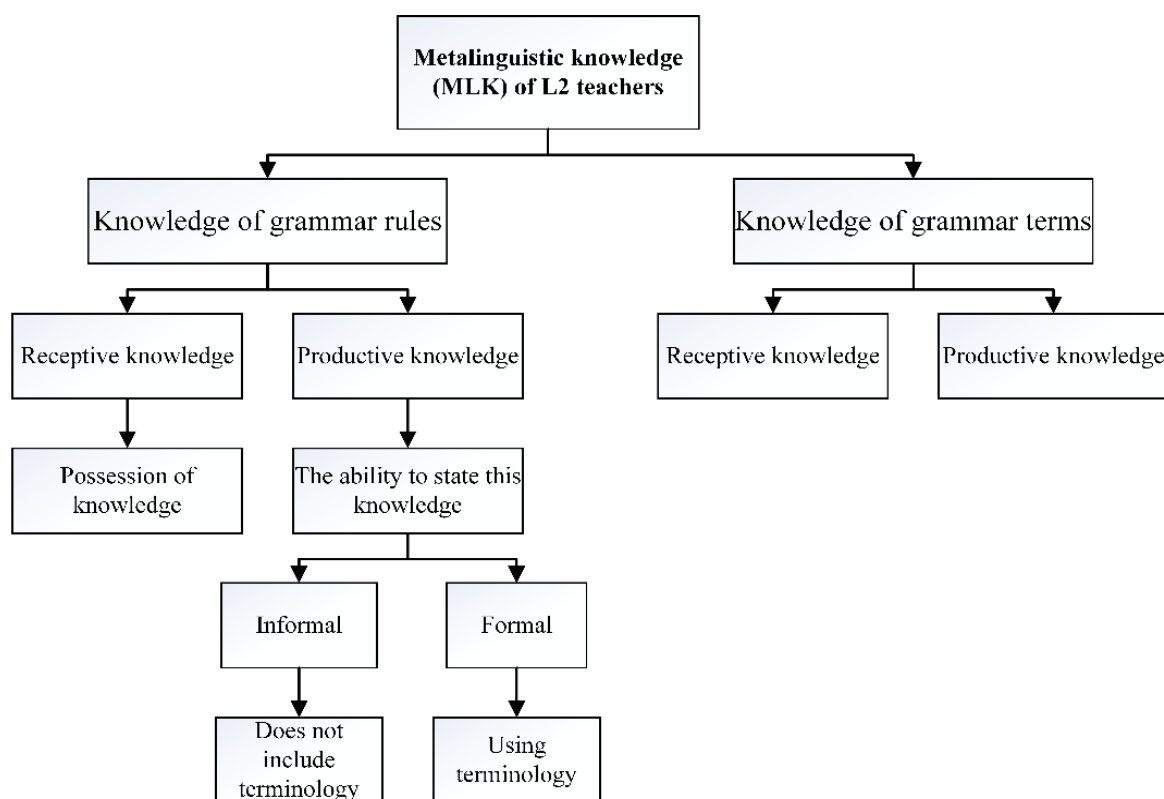


Figure 1. Metalinguistic knowledge of L2 teachers (from Almarshedi, 2017(adapted from Ellis (2004), Berry (2009) and Andrews (1997, 1999a, 1999b, 2007))

Is MLK important for L2 teachers? Why?

Metalinguistic knowledge can be thought as a narrow-scoped concept when compared to the other concepts related to it such as pedagogical content knowledge, teacher cognitions, language awareness and teacher language

awareness. Therefore, this term and its importance for language teachers can be more understandable if the definitions of these more inclusive and closely interrelated terms are given briefly first.

In this regard, pedagogical content knowledge might be seen as a broader concept. Shulman (1987), who centers upon teaching as a profession in a series of articles in the 1980s, wants to highlight the relation between knowledge of content and knowledge of pedagogy in education as he finds the research in this area insufficient. What he refers to as the 'missing paradigm' in the literature is the research into how much teachers comprehend subject matter knowledge cognitively and the effect of this comprehension on their instruction in the classroom (Shulman, 1986). All this interest provided the coining of the term pedagogical content knowledge (PCK) by Shulman (1987) who describes this term as teachers' understanding of how to organize, represent and adapt a particular subject in a way to address each learner in the learning environment by integrating their content and pedagogy knowledge.

As the definition suggests, teachers should be able to adapt the knowledge properly by considering the distinct features of the learners and the learning environment for an effective teaching. Abell (2008) states that to be able to transform the knowledge, teachers need to have competence to apply various categories of knowledge at the same time in the context. These interrelated knowledge categories are subject matter knowledge, pedagogical knowledge, knowledge of learners and knowledge of context, which are the main categories of PCK (Liu, 2013). The above mentioned types of knowledge are particularly important as they are closely correlate with the concept of Teacher Language Awareness (TLA), which is one of the focal points of the current study.

The significance of MLK in terms of relation with teacher language awareness. The language awareness has already been mentioned as an extensive concept in the first pages of this study, which will facilitate the understanding of the concept of teacher language awareness in this section. Thornbury (1997) defines TLA as teachers' knowledge about 'the underlying systems of the language' in order to be able to perform an effective teaching (p. x). Andrews (2007) points out the scientific and artistic value of TLA by explaining this concept in detail. It is scientific in a sense because it requires the language teacher to have sufficient amount of knowledge of target language (language

proficiency), understanding about language and its functioning. The artistic value of TLA shows up in classroom environment because while teaching a language, a teacher should be sensitive and tactful in order to be able to determine the precise amount of knowledge needed by learners and be able to offer that knowledge in a way that learners can understand (Andrews, 2007).

As stated in Andrews' words and shown in Figure 2, the sub-sets of TLA are subject matter cognitions, knowledge of learners, language competence and strategic competence. TLA is the interaction of these particular sub-sets of knowledge base and among them, subject-matter cognition is regarded as the core of this concept (Andrews, 2003). McNamara (1991) also points out the importance of teachers' subject-matter knowledge in teaching. According to him, teachers' subject matter knowledge has an impact on how they teach and when teachers know more and well about a subject, they will behave more courageous and become eager to make changes in their teaching styles in order to find out the most appropriate teaching style for classroom dynamics, which is a factor that make their classes more efficient and interesting for learners. On the other hand, teachers with knowledge deficiency in a subject may adopt a didactic manner in teaching to avoid students' participation and questions. Also, these teachers may not feel enthusiastic about teaching the 'difficult or complex' parts of the subject (p.115).

This belief leads to the link between pedagogical content knowledge and teacher language awareness again because when examined the sub-sets of these terms, PCK can be considered to involve TLA, as well. Thus, the relatedness of TLA with pedagogy and its involvement to pedagogical content knowledge as a sub-component specify language awareness as L2 teacher language awareness.

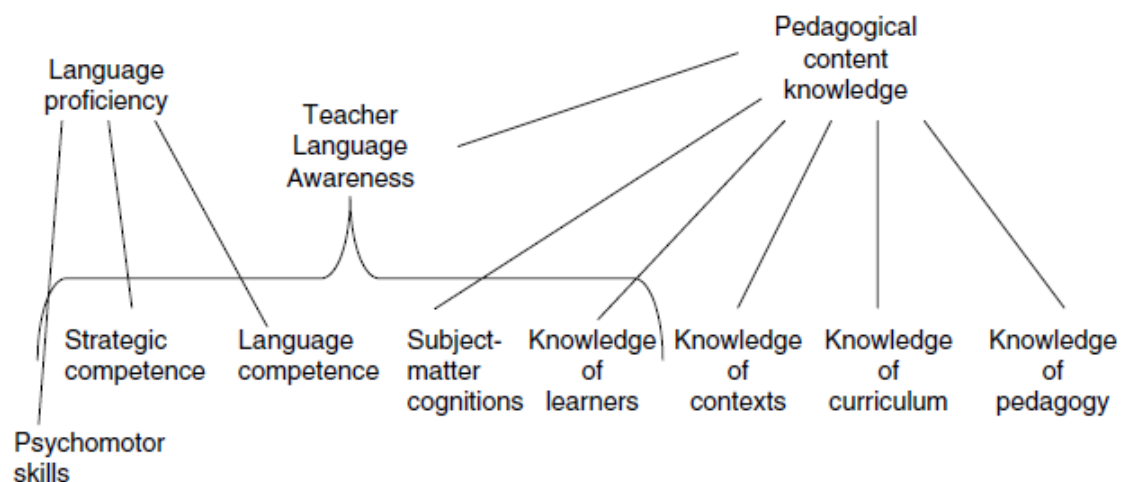


Figure 2. The relationship between the components of L2 teacher's professional knowledge (from Andrews, 2003, p. 91)

As stated hereinabove, Andrews regards subject-matter knowledge (i.e. knowledge about language) as a valuable and necessary component of TLA; however, he also remarks that having only subject-matter knowledge does not help enough to implement TLA efficaciously in pedagogical practice (Andrews, 2003).

These cognitive and reflexive features of teacher language awareness add subject-matter knowledge a metacognitive dimension. With regard to Flavell's explanation of the term of metacognitive as 'cognition about cognition' (Flavell, 1979), Andrews (1999a, 2007) states that the language knowledge/awareness of the teacher is therefore 'metacognitive' and to acknowledge of the importance of this cognitive dimension, he employs the term of 'metalinguistic'. According to Andrews (1999a), the language knowledge/awareness of the learner and the teacher of that language have qualitative differences and this case can be implied with the term of 'metalinguistic'.

Hereby, going back to the main subject of this research study, metalinguistic knowledge can be understood better. Because of the cognitive dimension of teacher language awareness, teachers' knowledge about language (i.e. subject matter knowledge) is expected to have metacognitive aspect as an interchangeable term of the teacher language awareness. Thornbury (1997) states that subject matter knowledge is broadly acknowledged as the core of a teacher's language awareness, and it is noteworthy that teachers' knowledge of the language systems is frequently included in the definitions of TLA.

In addition, it is worth noting here that Andrews (2007) considers the use of the term 'subject-matter cognitions' instead of just 'subject-matter knowledge' more appropriate. As the reason of this, he emphasizes on the teacher beliefs and states that even though subject-matter knowledge may form the essence of TLA, it is inevitable that teachers' knowledge is influenced by their own "beliefs about that subject matter and, for example, how it should or can be taught and learned in a given context" (p.70)

In accordance with this view, Borg (2003) defines teacher cognition as "what language teachers think, know and believe – and its relationship to instructional decisions" (p.1). It is a concept that involves both teachers' correlation between their thoughts, knowledge and beliefs and their reflection of these 'mental constructs' in the language teaching environment. Thus, although teachers' knowledge of language systems is at the core of the definitions of subject-matter knowledge commonly (Shulman, 1987) and it is considered as one of the basic elements of teacher professionalism (Shulman, 1999), it can be easily seen one more time that having subject-matter knowledge is not enough to apply TLA efficiently to provide an effective teaching period. In that, language teachers must also be able to know their learners well so that they can analyse the language from learners' perspective, have sufficient level of language competence and make use of strategic competence to overcome difficulties in L2 classrooms. Andrews (2000) explains the importance of those qualifications by emphasizing the necessity for L2 teachers to be able to reflect upon their knowledge of subject matter and "underlying systems of language" so that their students can get highest level of useful input for learning (p.28).

Shulman (1999) regards teachers as professionals as they are expected to be qualified to take cautious and rational actions when encountered unpredictable and problematic situations. He claims that to be able to take these actions, teachers need to have a deep knowledge of subject matter. Moreover, being aware of the learner and learners' perspective enables a teacher to foresee the difficulties that might be caused by materials and lessons for the learners.

The significance of MLK in terms of grammar teaching in L2 learning.
"Grammar is a system of rules (or patterns) which describe the formation of a language's sentences" (Zhang, 2009, p.184) and it requires phonetic and phonological system, morphology, syntax and semantic principles to occur

(O'Grady & Archibald, 2016). Language teachers present and practice the discrete grammatical structures of the language to provide learning. In other words, grammar teaching includes any sort of instructive teaching technique which is used to attract language learners' attention to a particular grammar form or to enable them to understand this grammatical form either metalinguistically and/or instinctively (Ellis, 2006).

The role of grammar teaching in Second Language Acquisition (SLA) has been a matter of controversy, especially, since Communicative Language Teaching (CLT) gained importance in this area during 1970s. CLT has been known as an approach which emphasizes meaningful communication and use instead of structure and usage. As Kumaravadivelu (2006) states, the focus of CLT is on communication and its learner-centered nature helps the principles and ideas of this approach to be implemented all over the world. Also, CLT upholds the idea that communicative competence is not relevant to grammatical competence and a learner does not need to have a developed grammatical competence to be able to become a communicatively competent user of language (Canale & Swain, 1980). However, it was this idea (i.e. ignorance on grammar teaching) that has led it to be queried. Another criticism on CLT is about its overwhelming dependency on real life communication practice and authenticity. Although they are accepted as important principles in language teaching, it is not easy to learn specific types of language knowledge and skills (e.g. English for academic purposes) in the naturalistic language learning process (Hinkel & Fotos, 2002). So, it could be better to combine communicative language use with formal instruction for an effective language teaching. Therefore, grammar teaching and focus-on-form approaches have begun to attract interest again in recent years (Gutiérrez, 2013).

Among the types of grammar, pedagogical grammar becomes more of an issue within the context of foreign language learning and teaching. Taylor (1993) defines pedagogical grammar as a description of the grammar of a language which is composed to address the needs of the language learner as well as the teacher, and is assessed by its accomplishment in improving understanding and acquisition of the foreign language. According to Little (1994), as a term, pedagogical grammar, contains three senses within itself: pedagogical process, pedagogical content and the combination of process and content. He regards pedagogical process as "the explicit treatment of elements of the target language

system as (part of) language teaching methodology” (p.99). It can be considered as the explicit knowledge in the language classroom.

The role of grammar instruction in L2 learning, especially explicit knowledge in language classroom, has been an issue on which a consensus cannot be built. Explicit knowledge of the target language is defined by Little (1994) as the “conscious knowledge of grammatical facts” (p.103). While there have been researchers who believe that grammar instruction is beneficial (Almarshedi, 2017; DeKeyser, 2008; Ellis, 1994; Norris & Ortega, 2000), there have also been those who think that it is not necessary and does not make any contribution to the improvement of second or foreign language (Dulay & Burt, 1973; Krashen, 1982). The supporters of the inessentiality of explicit instruction argue that acquisition of grammatical structures follow a natural and predictable way (Krashen, 1982). This can be true for L1 acquisition as learners acquire L1 grammar implicitly (i.e. unconsciously and without being taught directly); that means they can learn the language by exposing to normal linguistic input and communicating in language without getting any explicit rule. Nonetheless, as Ellis (2006) argues, the acquisition process of second language (L2) for an adult learner is different due to the effects of ‘transfer’, ‘learned attention’ and ‘automatization’. These are some shortcomings resulted from L2 learners’ process of learning target language in ‘non-optimal L1-tuned ways.’ So, these learners end up with the further need for explicit instruction in order to attain L2 accuracy.

Many researchers, asserting the idea that explicit instruction is an effective way to enhance second language learning, have attributed some useful roles to explicit learning (Gutiérrez, 2013). According to Ellis (2006), both instructed and naturalistic learners follow the same stages of development during the process of mastering in the target language features such as negatives, plurals and interrogatives. This being the case, in formal educational settings, the instructed learners can proceed in the natural order of language faster with the help of explicit knowledge since it makes some grammatical forms more discernable and remarkable (Ellis, 2011); and thus, learners can constitute links between form and meaning easily. When learners cannot benefit from implicit language sufficiently, explicit knowledge helps them solve their linguistic problems (Ellis, 2005). Moreover, explicit learning is important due to the contribution that it makes to the development of implicit learning. According to Little (1994), in some

communicative situations, learners can also deal with the gaps in their implicit knowledge through their explicit knowledge. For example, when a learner encounters a sentence that he does not understand well in the target language, he can apply syntactical rules (i.e. a form of explicit knowledge) to analyze and understand the meaning of that sentence. He also believes that it is hard to perform some kinds of communicative activities such as the ones pertaining to functional-notional categories without explicit grammatical knowledge. Zhang (2009) is another researcher admitting the necessity of grammar teaching either explicitly or implicitly and considers that language learners who have not received adequate grammar rules instruction can neither make correct grammatical sentences by using the language, nor speak the language 'fluently or accurately'. In his study, Zhang also mentions that getting grammar instruction can affect learners' fossilization process, too. To make it clear, learners' linguistic competence can be stuck at a certain level. He asserts that both learners who are not instructed and those who are instructed have the risk of fossilization; yet the risk of fossilization is higher on the former.

Since grammar instruction has significant impacts on language learning, language teachers' explicit grammatical knowledge and their methods of transferring this knowledge to their students have been matters to be examined in teacher education. Teachers' metalinguistic knowledge is quite crucial so that they can improve their students' comprehension of the target language in the language classroom setting (McNamara, 1991). As also Freeman (2002) states, language is a tool that allows the teacher and students to incorporate each other into the content of the course.

Teachers may need to use terminology to identify speech parts, to identify and correct errors and to verbalise rules. With regard to latter, while some researchers state that using terminology is not necessary for verbalising some rules, there are also many rules that cannot be verbalised without using technical terms (Gutiérrez, 2013). Knowing and using terminology is also important in terms of feedback. According to Lan (2011), language teachers should use their metalinguistic knowledge while giving explanations and feedback to make their students familiar with the terms. Identification of speech parts can help learners group the same parts and thus, recognize them and their functions easily when they come across again with the same group of speech parts.

Teachers' explicit knowledge is also significant with regard to input. In a classroom setting, the students can get the input from three different sources: the materials, the other students and the teacher. The teacher must have the qualification to filter the input according to learners' needs and levels. As Andrews (1999a) affirms, the quality of 'filtered input' is significantly affected by the extent of teacher's subject matter knowledge, the confidence she has in her knowledge, and her awareness of how to benefit from her knowledge (p.166).

Metalinguistic knowledge is one of the prominent factors that influence teachers' performance at almost all points. According to Andrews (2001) when teachers have sufficient level of grammatical knowledge, they can easily notice the errors made by students. In these cases, they can reflect upon the errors and give satisfying explanations to help and support the improvement of students in the best possible way. Teachers' having a rich knowledge of grammar also contributes students to build a sense of confidence in their teacher. On the other hand, Myhill et. al. (2013) alleges that when teachers have limited level of explicit knowledge about language and cannot handle the grammatical problems encountered, this affects the learning process in terms of both teachers and students. They also support their statement with their research results which showed that limited MLK causes teachers struggling with grammar explanation and so, learners may create misconceptions about grammatical terms. For example, some language teachers prefer to define word classes by using semantic definitions instead of functional ones and call a noun a 'naming word', a verb a 'doing word' or 'action word' and an adjective a 'describing word' (Myhill et. al, 2013). According to an example given by one of the interviewed teachers in their study, due to this kind of explanation, when students come across with a sentence like 'Dancing is my passion.', they may misconceive it and think dancing is the 'verb' of the sentence because it is a 'doing word'.

All in all, defining and explaining of grammatical metalanguage are quite challenging in teaching grammar (Myhill et. al., 2013); however, having and using metalinguistic knowledge make teachers feel more confident in their job and help their teaching process get easier.

Assessment of MLK

In studies conducted so far, generally, tests have been used as a measurement tool of metalinguistic knowledge. The test results have been also supported by observation method in some studies. Besides that, various writing tasks have been used to measure MLK in some studies.

When the studies are reviewed in the literature, it is seen that the first test in order to measure MLK was developed by Bloor (1986). This test contains only 19 items and intended to explore the ability of students studying Language and Linguistics to identify parts of speech and grammatical functions. Later, different tests were developed based on Bloor's test taking into account the research aim and context. One of them is developed by Alderson et. al. (1997). This test is more extensive than Bloor's test and contains three sections. The first section has the items of Bloor' test, the second section is about grammatical rules and requests identification and correction of faulty parts of sentences. In the last section, there are multiple-choice questions. Besides including a variety of questions, this test can be considered as a more extensive one as it tests receptive knowledge of both terms and rules and productive knowledge of rules which are the components of metalinguistic knowledge. Andrews (2000) also developed metalinguistic knowledge tests according to his research problem based on Alderson's test.

In Tokunaga's (2014) metalanguage test, there are four sections and 36 items in total, all of which are multiple choice questions at sentence level and designed to test receptive knowledge of terms. The sections specifically test the learners' knowledge on parts of speech, parts of sentences, tenses, voices and moods and the terms that most likely to cause confusion.

Almershadi (2017) also developed his own test by considering that the previous tests have some shortcomings in terms of validity. According to Almershadi, metalinguistic knowledge tests should be designed to measure all components of MLK. Namely, these tests should contain sections to measure both knowledge of terms and knowledge of rules with the sub-divisions of these components (i.e. receptive knowledge and productive knowledge) in order to provide greater validity of the test. Moreover, Almershadi asserts that a metalinguistic knowledge test should also have items at text level as well as at

sentence level to test the MLK competence. Therefore, he included questions prepared by paying attention to these points in his test.

On this issue, Ellis (2004) argued that measuring receptive knowledge can provide greater validity in determining metalinguistic competence as metalanguage is “learners’ understanding of explicit linguistic constructs rather than their ability to articulate metalinguistic rules that is important where language acquisition and use are concerned” (p.267). However, when this issue is considered in terms of teachers’ metalinguistic competences, it is clear that teachers must have both receptive and productive knowledge.

Can L2 Teachers Improve Their MLK? How?

Studies conducted on prospective or experienced teachers’ metalinguistic knowledge have also provided suggestions on how teachers could improve this knowledge. Among the few factors presented, the most conspicuous ones are formal study, teaching practices and experiences as well as learners’ and teachers’ own efforts.

What is meant by formal study is students’ improving their MLK by the help of the courses they take at schools and English language departments of universities, especially in theoretical linguistics and applied linguistics classes. While students learn general linguistics in theoretical linguistics classes; in applied linguistic classes, they learn how to employ the knowledge of linguistics in their teaching practices, which helps language teaching directly (Wilkins, 1972). One of the language teachers who participated in Borg’s study (2005) clearly stated her realization of how little she had known about English grammar and English language when she started teacher training college. In his study, Borg suggested that interconnection of KAL and methodology courses in teacher education contexts may also provide great benefits to teacher candidates’ sense of KAL and roles in teaching since their pedagogical decisions and language instruction in classroom cannot be separated from their beliefs and attitudes towards language teaching.

With the aim of comparing pre-service English language teachers’ KAL before and after the English Grammar course, Bigelow and Ranney (2005) requested participants to identify particular metalinguistic terms in a text. When students’ scores in the pre-test and post-test were analyzed, a significant increase

of 25% was observed. These results proved that students improved their ability to define grammatical forms through this course.

Similarly, Angelova (2005) carried out a study aiming to see the changes in teachers' knowledge about language after they had taken applied linguistics instruction. In her applied linguistics class, there were prospective English language teachers whose native language is English. She wished these teacher trainees to experience the process of learning a foreign language personally before they became a teacher and started each class by offering them mini-lessons for 15 minutes in a foreign language that they did not know. She thought that if they became aware of the process of language acquisition by experiencing it, they could internalize the concepts of SLA and linguistics better and apply them in their future English language classes. While being interviewed, the students pointed out the valuable contribution of this process to them both cognitively and pragmatically.

The importance of teacher candidates' practices during their training process and their experiences as a teacher after graduation might be favored in order to improve MLK, as well. Andrew (1999b) put forth results that support this judgment in his study. The measured metalinguistic knowledge levels of 2-year experienced teachers in the study were 60% more than the prospective teachers. Likewise, when Almarshedi (2017) compared the Saudi pre-service and experienced teachers' MLK levels, he witnessed that experienced teachers have higher levels of MLK. He alleged that the reason of this could be the teachers' intrinsic motivation to be a good teacher and their reflections on their own teaching practices in classroom situations. However, there are also some studies proving that teaching experience does not have a positive effect on the improvement of this knowledge. In her study, Wach (2014) compared MLK levels of experienced English language teachers, teacher trainees and advanced English language learners. According to test results, experienced teachers had the lowest scores among the three groups of participants.

What comes to mind in this case is, as Andrew (1999b) states, the quality and quantity of experience. Even if teachers practice their profession for many years, they may not make progress unless they desire to develop themselves. According to Hogan, Dwyer, Harney, Noone and Conway (2015), being aware of their metalanguage and their ability to use metacognitive strategies like self-

assessment and self-regulation can be fundamental qualifications to be owned by teachers and learners in order to be an effective one. Therefore, both teachers and learners should also put forward their own efforts to ensure continuous development.

Although there is not much research on self-study techniques for gaining MLK in literature; participants mentioned some techniques they used in Andrew's (1994) study. Almarshedi (2017) also examines this topic under a separate heading in his study. With reference to all these studies, the learners and teachers can improve their MLK by participating in seminars on the major or benefiting from the reference materials. In addition, by taking advantage of technology, they can have access to most of the information easily through their own research. Exchanging ideas by taking part in discussion groups can also be beneficial for learning different views and ensuring the permanence of the information.

Previous Studies Regarding Metalinguistic Knowledge in National and International Contexts

This section includes the evaluation of research into teachers' metalinguistic knowledge. These studies have included both student-teachers and experienced teachers as participants and only native ones had been taken into account at the beginning. (Bloor, 1986; Cajkler & Hislam, 2002; Sangster, Anderson, & O'Hara, 2013; Williamson & Hardman, 1995). Later, some other studies aimed investigating whether being a non-native language teacher has an impact on metalinguistic knowledge or not. Thus, in the literature, there have been studies conducted to measure non-native student-teachers' MLK (Altinsoy & Boyraz, 2017; Berry, 2009; Burgess, Turvey & Quarshie, 2000) and to measure non-native experienced-teachers' MLK (Andrews & McNeill, 2005; Shuib, 2009; Lan, 2011). Besides, there have been studies conducted to compare both of pre-service and experienced teachers' MLK (Almarshedi, 2017; Andrews, 1999b; Wach, 2014). Just a few of these measurement studies have showed that language teachers had sufficient level of MLK; most of the participants had deficiency in their MLK. Some of these studies have also given place to the perceptions of participants regarding their own MLK (Almarshedi, 2017; Andrews, 1999b, Andrews & McNeill, 2005; Bloor, 1986; Sangster et. al., 2013; Burgess et. al., 2000; Shuib, 2009).

Studies conducted on native pre-service and experienced teachers' metalinguistic knowledge. In a study conducted by Bloor (1986) , 63 native student- teachers' of English language and 175 students from other departments were the participants and the purpose of this study was to understand whether student-teachers could identify particular parts of speech and grammatical functions in sample sentences. In his study, he used a questionnaire called SPAM which stands for Students' Prior Awareness of Metalinguistics. The results indicated that students had some deficiency in grammar terms. Moreover, it was not surprising to see that students studying linguistics performed better on the questionnaire compared to the students from other departments. Some open-ended questions about their thoughts on Metalinguistics were also asked to the participants and the answers showed that even most of the linguistics students felt unconfident and inadequate in this area. When it comes to their evaluation of this knowledge, %57 of the participants stated that they found it useful and interesting.

Williamson and Hardman (1995) conducted their research considering the curriculum discussions in England and Wales. Some of the criticism was that the grammar teaching subjects on the National Curriculum for English were not enough both in number and content. Thus, they aimed to investigate the current grammatical knowledge levels of trainee primary school teachers. The results showed that primary school teachers had some significant gaps in grammar teaching area, especially in formulating grammatical rules and they needed a systematic course of study in grammar teaching during their school training in order to become more efficient and adequate for their students in their future teaching life.

Cajkler and Hislam (2002) carried out a similar study in England to explore how trainee native teachers of English language handle grammatical terms. Although these participants had one year Post-Graduate Certificate of Education Programme, they were not able to classify parts of speech and sentence types satisfyingly, which supported the curriculum discussions on the language teacher education programs in England. Moreover, the interviews with participants in the same study indicated that they believed that their subject knowledge level was lower compared with their measured level at the end of the test during the study. That means, they saw themselves less competent than their existing level in grammar, the reason of which was considered by the researchers as the high

anxiety level that participants had due to the unrealistic public expectations and the objectives of pre-service programme.

The same authors reached similar results at the case-studies that they conducted on four primary trainees by observing them to see how they conveyed their grammar knowledge to their own students during class hours (Hislam & Cajkler, 2005).

Likewise, Sangster, Anderson, and O'Hara, (2013) conducted a research on student teachers and investigate their metalinguistic knowledge level by also giving place to their perceptions on the level of their own knowledge about language. The results of this study conducted in Scotland was different from Cajkler and Hislam's as the participants in this study saw themselves more competent on linguistic knowledge; however, their measured level was quite low contrary to their perceptions.

Studies conducted on non-native pre-service and experienced teachers' metalinguistic knowledge. A substantial body of research has also been carried out on pre-service and experienced teachers of English who are non-native speakers. Most of these studies have focused on non-native English language teachers by attaching particular significance to pre-service teachers (Almarshedi, 2017). Some of these studies covers both of two 'main components of MLK; knowledge of terms and knowledge of rules' while some others bear upon only one component of MLK, either knowledge of grammar terms or knowledge of grammar rules (Almarshedi, 2017).

Andrews (1999b) who had various studies on the subject recognized a need to conduct a study in Hong Kong where the teachers' metalinguistic awareness had been a topic to focus on recently because of the unsatisfying student achievement in English and Chinese. The reason of this was thought to be related to the quality of teachers and so, a test which had been designed by Bloor (1986) and then been devised by Alderson et. al (1997) was administered to the participant teachers who were grouped into four types; (1) non-native experienced L2 teachers, (2) non-native prospective L2 teachers, (3) native prospective L2 teachers who had English studies and (4) native prospective L2 teachers who had studied Modern Languages at university. The aim of the study was to measure their explicit knowledge of English grammar terms and rules under three main hypotheses. Andrews's first hypothesis was that having classroom experience

provided teachers a greater amount of explicit knowledge of grammar and the results confirmed it as experienced teachers outperformed the other groups of teachers in all four measures although the overall mean scores of them was %60, showing that even these teachers did not have sufficient MLK and suffered from gaps. Moreover, they had most difficulty in explaining errors according to results. However, it was not certain that the determining factor in this case was 'the quantity of experience or quality of experience' (Andrews, 1999b, p.156).

Andrews' second hypothesis was about the impact of being native (N) or non-native (NN) speakers of that language and he believed that non-native language teachers had a higher level of metalinguistic knowledge. In this issue, the results showed that NN teachers had higher scores than N teachers but the difference between the scores were not significant, the reason of which could be other factors like experience or department as thought by the researcher (Andrews, 1999b). All in all, it can be said that although being native/non-native issue could be an influential factor upon such knowledge, having classroom experience had a greater impact. Nonetheless, having a small sample size (20 participants for each group) creates a disadvantage for this study as larger number of participants could be better for generalisation.

Burgess, Turvey and Quarshie (2000) intended to explore the problems that student teachers encounter while teaching grammar. Their hypothesis was that by deepening the subject-knowledge of students, these problems could be minimized. They collected the data in two sections: firstly, they had pre-service teachers to write a letter about a given setting by introducing grammar as a topic. They examined each letter in detail and define which grammar structures had been used. In the next step, they requested participants to make self-evaluation about themselves as language users. 'Which were the areas in which they need to develop their subject knowledge? In what particular areas did they feel most confident, or less?' were the examples of questions that they asked to the student teachers in this section. After data analysis, they found out that pre-service teachers had the highest confidence level with language at text level and they feel less confident in sentence grammar. They also were doubtful about rules and structural forms of language.

Another important study on experienced non-native language teachers was conducted by Andrews and McNeill (2005). Although they intended to measure

metalinguistic awareness of teachers like in many other studies, the point that makes their research distinct was that the participants were classified as 'Good Language Teacher'. The three Hong Kong teachers taking part in this study had gained this qualification by getting TESOL certificate. In a sense, Andrews and McNeill explored whether 'good language teachers' have a highly improved level of teacher language awareness and are able to reflect their awareness in their pedagogical practice. The researchers collected the data for grammatical terms and vocabulary by using a test of language awareness which was designed by Bloor (1986) first and then adopted by Alderson et.al. (1997). In order to collect the data for pedagogical practice, they observed the courses of the teachers and interviewed with them. The research revealed unexpected and detailed results. Compared with the participants in the Andrews' study (2000), the 'good language teachers' did not have significantly high scores in the test, which meant that even they had gaps in the subject-matter knowledge contrary to expected belief.

Berry (2009) conducted a research with a different aim instead of just measuring the metalinguistic knowledge level of participants. He wanted to explore whether the participants from different countries differed from each other in terms of 'terminological cultures' or not. For his comparative study, Berry had 296 English major student teachers from Poland, Austria and Hong Kong in total. He used a 50 item questionnaire which evaluated the receptive knowledge of grammatical terminology. This questionnaire included word classes, verb forms and more scientific grammar terms like 'predicate, complement, etc.' and students were requested to tick the items which they had already been familiar with and also to give examples in order to show that they really understood the term. The obtained results were quite interesting and showed both in-group and inter-group differences, providing the existing 'terminological cultures'. In that, the Polish students had the highest overall scores and the Austrians had the lowest in three groups. The populations had different levels of knowledge for the same term, the most obvious example of which was on indefinite article. 95% of the Polish students knew the term and gave right examples while only 29% of Hong Kong students could do this.

Shuib (2009) was another researcher who studied on this subject by aiming to examine 71 Malaysian experienced primary school teachers' grammatical awareness. A questionnaire adopted from Andrews' study (1999a) was used to

measure knowledge level and then an interview section was held to consolidate the results of the questionnaire. The questionnaire had four sections addressing four different tasks grounded on Andrews' theory of grammatical awareness. These tasks were recognizing metalanguage, generating relevant metalinguistic terms, identifying and correcting the errors and explaining grammatical terms. The mean score that all of the participants got at the end of the test was 39.53, which manifested that the respondents had a low level of grammatical knowledge awareness as they could not do well in the test. Also, as the responses getting from the interviews supported, the participants had the greatest difficulty in correcting errors and explaining grammatical rules, which were the parts that measured productive knowledge in the test.

When Lan (2011) saw the poor performance of in-service English teachers on English Language Proficiency Assessment for Teachers, he needed to explore metalinguistic awareness of primary and secondary school English language teachers in Hong Kong. The data collected with metalanguage test from 20 participants showed that the teachers' mean score in explanation parts was lowest. They also had much more difficulty while recognizing grammatical functions than grammatical forms.

One of the recent studies on the subject was conducted by Wach (2014). In her study, there were 153 Polish participants in total who were grouped into three: English language teachers, English majors and teacher trainees at the same time and advanced English language learners who studied Economics. The study aimed to explore and compare the explicit knowledge level of these three groups by using grammaticality judgment test and a metalinguistic knowledge test. The results were both unsurprising and disappointing. Teacher trainees outscored the other two groups in all tests and the learners group had the lowest scores. However, their scores on metalinguistic terminology test, which was 55.4% for teacher trainees and 36.8% for teachers, were not found sufficient. Lastly, according to the results, the most difficult task for all groups was the one which required productive metalanguage-use.

Recently, Almarshedi (2017) conducted a study on MLK of female experienced and student language teachers in an English Language department in Saudi Arabia. He intended to measure their MLK level, explore the nature of it and learn about the participants' self-perceptions. In his study, he used an MLK test

that he devised himself, observations and role-play technique as measurement tools of their MLK. Also, he investigated the participants' self-perceptions via both interview and questionnaire technique. The results showed that both experienced and student teachers had weaknesses in their MLK. When the scores of both groups were compared, it was observed that experienced teachers had higher level of MLK and it was concluded by the researcher that the reason of this situation could be the positive impact of their teaching practices. The participants' self-perceptions were also compatible with the results of their test scores. While experienced teachers had higher confidence level, student teachers were lack of confidence in their MLK.

In Turkish context, Altınsoy and Boyraz (2017) conducted a quantitative study in order to investigate what metalinguistic features can be identified by ELT students and the relationship between their metalinguistic knowledge and English speaking anxiety. They used a metalanguage test developed by Tokunaga (2014). The test results indicated that ELT students had intermediate level metalinguistic knowledge. The researchers had expected that students would do best in grammatically judgment part of the test due to the grammar courses they received in ELT department. However, contrary to expectations, while students had highest scores in speech part patterns, they had the lowest scores in grammaticality judgment part among five sections in the test. For the purpose of measuring speaking anxiety, they used a Likert scale including 18 items. According to the scale results, the students had intermediate level speaking anxiety but there was not a significant relevance between their MLK and speaking anxiety. However, when the results were analyzed for each section separately, it was observed that speaking anxiety and grammatical judgment is negatively correlated.

This review of literature has confirmed that metalinguistic knowledge development of English language teachers is an essential issue to be focused on (is a matter of importance) in ELT teacher training programs. Given that the concept of MLK has been less investigated in Turkish context so far and it has not been addressed in terms of grammatical knowledge, the present study will contribute to the literature by examining pre-service English language teachers' MLK in terms of both their grammatical knowledge level and awareness. Conducting studies on this issue can allow us to see if there are any shortcomings and thus, to make necessary improvements.

Chapter 3

Methodology

Introduction

This chapter includes research design, setting, participants and data collection instruments, research questions, procedures for data collection and analysis. They are organized and presented in accordance with the purpose of the research which is to investigate metalinguistic language levels of pre-service teachers of English at a state university in Turkey and to explore their perceptions of metalinguistic knowledge.

Research Design

The present study was conducted by adopting a mixed - methods approach which is considered as an emerging area and has gained popularity in the areas of applied social research and evaluation since it was identified as a methodological movement in the early 1980s (Tashakkori & Teddlie, 2003). Dörnyei (2007) defines mixed methods research as a blend of qualitative and quantitative methods in a single research study. This research approach requires researchers to collect both quantitative and qualitative data and integrate and analyze these two forms of data by using distinct designs (Creswell, 2014).

Dörnyei (2007) states that quantitative research provides systematic data that can be generalizable to other cases and a time-efficient research and data analysis process in which the data can be collected from large sample sizes at once. However, it fails to describe complex nature of reality as it ignores internal perspectives of agents because of its objective nature (Danermark, Ekstrom & Jakobsen, 2002). On the other hand, while qualitative research provides abundant material for the research report and probable further research studies since it can answer 'why' question with its explanatory nature, it may give imprecise results because of the researcher's subjectivity (Riazi & Candlin, 2014). In addition to the disadvantage of having 'time-consuming' and 'labour-intensive' research process, the result of a qualitative research is also weak in terms of transferability because of the small sample size (Dörnyei, 2007).

Since either quantitative data or qualitative data have their own limitations, the combination of these two methods helps researchers to build their studies on the strengths of these two data types by ensuring a better exploration of the research problem and also an alternative perspective into the study (Creswell, 2012). Besides that, mixing methods provides 'improved validity' for the results as it includes a 'multi-level analysis' (Dörnyei, 2007). These advantages has provided mixed methods research gain popularity and importance in the field of education in recent years, as well (Gall, Gall & Borg, 2007) although it also has some limitations. In that, researchers must have sufficient methodological knowledge and skills to handle both types of research data to be able to conduct a mixed methods research and also this research process takes much time compared to the other studies requiring the use of single type of data.

As for the present study, the rationale behind the utilizing mixed methods approach was to explain the initial quantitative statistical results through qualitative research in more detail. In other words, this study benefited from the 'complementarity function' of mixed methods research, which offers much more understanding by clarifying the issues at the core of the study in terms of different facets (Dörnyei, 2007).

After identifying the rationale of the research approach, there are two main dimensions to take into account in mixed methods research which are 'priority' and 'sequence' of the data types (Creswell, 2012). Priority relates to the emphasis given to a data type. In other words, one of the quantitative or qualitative data can have much more emphasis compared to the other in a mixed methods research; or they can be of equal weight. As for the sequence, it relates to the times of data collection and it has two approaches as concurrent and sequential. When both qualitative and quantitative data are collected at the same time, it is a concurrent study. When one of these data types are collected before the other one, then it is a sequential study, as it is evident from its name. A notation system was designed by Morse (1991) in order to show the procedure for mixed method studies and ease the understanding of it by both researchers and audiences. The adapted form of this notation system by Creswell (2012) as follows:

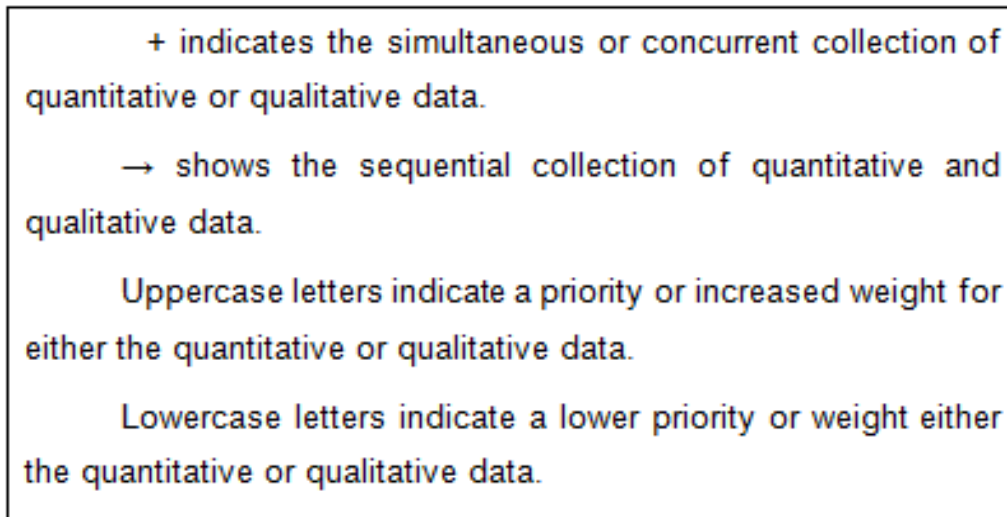


Figure 3. Notation system for mixed methods studies

In here, it would be appropriate to mention mixed methods research designs which are closely related to these dimensions. Different mixed method typologies have been developed by several mixed method theorists such as Caracelli and Greene (1997), Tashakkoria and Tedlie (2003) and Creswell and Plano Clark (2011) to be able to organize abstract and complex side of mixed methods research (Cameron, 2009). This study grounded on Creswell and Plano Clark's typology. Creswell and Clark (2011) have developed six types of designs which are the convergent parallel design, the explanatory sequential design, the exploratory sequential design, the embedded design, the transformative design and the multiphase design. Among these six types of research designs, the present study adopted the explanatory sequential design regarding the priority and sequence of data types in collection procedure, data analysis procedure and the stage/stages of the study where the researcher combine the two forms of data. According to Creswell and Clark (2011), the explanatory sequential mixed methods design consists of two-phase: collecting quantitative data to provide a general picture of the research problem at first and then collecting qualitative data to do an in-depth analysis in order to refine and explain the general picture.

As the type of research design requires, the quantitative data were collected at the first-phase of the study by using a test. Later on, after the analysis of this data, the semi-structured interviews were held to form the qualitative dimension of the research. The priority was given to quantitative data because it was important

to identify the metalinguistic knowledge levels of pre-service English language teachers and examine the effect of gender and grade level on it as specified in the purpose of the study. Once the levels had been measured by quantitative data, the need to have an idea about the awareness of pre-service teachers of English on metalinguistic knowledge and thus, to be able to explore the possible reasons behind their determined metalinguistic knowledge levels led the researcher to collect qualitative data, as well. Although mixed methods research design required intensive effort and time in order to collect, analyze and report both quantitative and qualitative data, it helped the researcher to clearly draw the quantitative and qualitative parts of the study and capture the data thoroughly.

All in all, the above mentioned research procedure of the present study is based on dominant status sequential design and portrayed as QUAN → qual with regard to the notation system by Creswell (2012).

Quantitative research design. In the initial stage of the present study, a quantitative research design was conducted. Quantitative research design is based on collecting numerical data from a sample by using different kind of instruments and then analysis of this data by using statistical methods. As Hopkins (2000) briefly states, quantitative research is applied in order to quantify relationships between or among variables.

The quantitative stage of the present research was a descriptive study which carries the aim to 'examine the situation as it exists in its current state' without any intervention and relation of causality (Williams, 2007, p.66). Among main quantitative research methods (i.e. experimental, correlational, and survey research), the researcher applied survey method which is used to collect a large amount of quantitative data from a representative sample and use this data to make inferences about entire population (Creswell, 2012). The data are usually collected by means of questionnaires, tests and interviews in survey research studies. In this respect, a test consisting of 94 items was utilized which includes both closed-ended and open-ended items for this study.

There are two basic designs of survey research studies which differ according to the data collection timing: cross-sectional and longitudinal. While the data are gathered at one point in time by conducting a cross-sectional survey design, this process requires much more time in longitudinal survey design as the data are gathered over a period of time. Therefore, considering the structure of

data collection instrument and time constraints, cross-sectional survey design was preferred in this study.

Qualitative research design. Any research offering findings that cannot be reached by statistical methods or by any quantification method is defined as qualitative research by Strauss and Corbin (1990). Qualitative research design is based on collection of non-numerical data from a sample to understand human beings' beliefs, perceptions and experiences with an interpretive approach (Jackson, Drummond & Camara, 2007). As Creswell (2012) nicely puts it, the exploratory nature of a study is one of the main reasons that necessitates qualitative study. This implies that in cases where there has not been sufficient explanation about the topic or the population being investigated, the researcher selects the way of taking the participants' opinions and makes inferences based on these data in order to develop an understanding about the research. Considering its intended use, a qualitative research design was employed in the second stage of the study to be able to gain insight into the pre-service English language teachers' metalinguistic knowledge awareness and their opinions on the importance of this knowledge.

There are various methods used for applying a qualitative research, each with a different purpose (i.e. grounded theory research, ethnographic research, narrative research, case studies and phenomenological study etc.). Among these methods, this study adopted phenomenological method which aims to comprehend and evaluate an experience with an approach based on participants' perspectives (Leedy & Ormrod, 2001). In phenomenological studies, the researchers try to obtain deep information about a situation or an event through the specific human experience. However, since this method put emphasis on subjectivity and interpretation, the researcher is expected to direct this process by leaving aside all prejudices, which is considered the difficult side of phenomenology (Williams, 2007).

Interviews, conversations, participant observations, and discussions are some of the techniques used in 'phenomenologically-based research' to collect data (Lester, 1999). Among these data collection techniques, participant pre-service teachers' opinions were gathered through interviews in the present study as this technique provides a 'deeper' understanding of study phenomenon that cannot be obtained via purely quantitative data (Silverman, 2000).

Setting and Participants

The current study was conducted in Hacettepe University Faculty of Education. The test and interviews were carried out in English Language Teaching (ELT) department which has been training teachers of English since 1985. The main aim of the department is to train prospective teachers of English who adopt contemporary principles of education. Both graduate programs (MA and PhD) and an undergraduate (BA) program in English Language Teaching are offered in the department. Research areas in the department can be listed as applied linguistics, pedagogy, teaching of culture and literature, classroom management, developing course materials, and technology and skills teaching.

The students who are admitted to the department by a nationwide examination are entitled to receive education in this 4-year program. Before starting to take courses in the department, the students take a compulsory English proficiency exam and those who were succeed in this exam start the department immediately, while those who fail can start the department after studying and succeeding intensive general English for one year in the preparatory classes of School of Foreign Languages in order to be fully qualified for the language of instruction in the department. Students in the ELT program begin to take compulsory courses that they can obtain metalinguistic knowledge since the first semester of the program. The students are offered *Contextual Grammar I - II* in their first year; *Linguistics I-II* in second year and Teaching of Language Skills I- II in third year. A course with this content is not offered in the last year; however, there is a compulsory *School Experience* course where students can apply what they have learned from the curriculum courses in a real classroom environment and be observed by their teachers.

For the quantitative part of the study, nonprobability sampling approach was adopted and the participants were selected through convenience sampling, a type of nonprobability sampling. In this sampling technique, the researcher may not aim to generalize findings to the whole population; instead his/her only aim is to describe participant group in a study (Creswell, 2012). Convenience sampling is defined as the selection of participants who are available and eager to take part in

the study (Mackey & Gass, 2005) and the fact that it is economic and effortless makes it useful in terms of researchers (Etikan, Musa & Alkassim, 2016).

This study was carried out with 2nd, 3rd and 4th grade students. There were 80 second grade, 50 third grade and 90 fourth grade students taking courses in that semester in the department. 100 of 230 students in the department were reached to collect quantitative data in that semester (2018-2019) and 20 fourth grade students from the previous spring term (2017-2018) had already participated in the study. The number of the participants who took the test changed by grade level. Among 120 participants in total, there were 48 sophomores (40.0%); 19 juniors (15.8%) and 53 seniors (44.1%). Regarding gender distribution, the number of female students was higher than male students by the nature of the department. There were 35 (29.1%) male and 85 (70.8%) female participants in the study (Table 1).

Table 1

Demographic Data of Participants (N=120)

Variables	N	%
<i>Gender</i>		
Male	35	29.1
Female	85	70.8
<i>Grade</i>		
Second grade	48	40.0
Third grade	19	15.8
Fourth grade	53	44.1
<i>Total</i>	120	

For the interviews utilized in the qualitative research, a convenience sampling technique was used as in quantitative research. The sample universe was defined as a homogenous sample in coherent with the research aim and questions (Robinson, 2014), which seeks for the perceptions of all interviewees about MLK regardless of grade level. Clearly, the researcher included interviewees from each grade level involved in the research; however, the perceptions of the interviewees on MLK were not explored or compared in terms of their grade levels and gender variables.

As for the sample size, a study by Guest, Bunce and Janson (2006) was referred, in which “the authors systematically document the degree of data saturation and variability over the course of thematic analysis” (p.59). In this study,

when data collection instrument and procedure was taken into account in order to determine the sample size for qualitative studies, 12 participants were found to be sufficient to reach the data saturation level in interview technique, so this number was specified as the initial criteria for the interview process. Glaser and Strauss (1967) defined saturation level as the point from which additional data does not seem to provide new concepts and only repeats what has been revealed based on previous informants' responses. Based on the research of Francis (2010), the stopping criteria is defined as 3 interviews that provide similar themes. Thus, 12 pre-service English language teachers were selected for the interviews through convenience sampling at first; however, as the themes were still seen to be differentiated, the data collection process continued up to 18 interviewees and it ended up with the 18th interview as the concepts no longer changed.

Table 2

Demographic Data of Interviewees (N=18)

Variables	N	%
<i>Gender</i>		
Male	7	38.8
Female	11	61.1
<i>Grade</i>		
Second grade	3	16.6
Third grade	4	22.2
Fourth grade	11	61.1
<i>Total</i>	18	

Data Collection Instruments

The data were gathered by an achievement test to measure the MLK levels of pre-service language teachers of English in the quantitative research. Besides that, semi-structured interview technique was adopted for data collection in the qualitative research.

The metalinguistic knowledge test. Metalinguistic knowledge of the participants was measured by using an achievement test which was used by Alderson and Horák (2010). They adapted the test which was originally devised by Alderson et al. (1997) based on Bloor's test (1986) (see Appendix A).

Table 3

Structure of Metalinguistic Knowledge Test by Alderson and Horak (2010)

	Sections	Sub-sections	The tasks in the questions	Item Numbers
MLK	Section1: Knowledge of grammar terms	1: Receptive knowledge of terms	From the sentence below select one example of the grammatical item requested and write it in the space provided.	1-15
		2: Receptive knowledge of terms	In the following sentences, underline the item requested in brackets.	1-4
	Section2: Knowledge of grammar rules	1: Productive knowledge of rules	Rewrite the faulty part of the sentence correctly.	1-15
		2: Productive knowledge of rules	Underneath each sentence explain the grammatical rule which you think has been broken	1-15
	Section3: Knowledge of grammar terms	Productive knowledge of terms	Select one of the options below which functions most nearly like the word or phrase in the key sentence from these underlined words in the second sentence	1-45

*This table was inspired by the table made by Almarshedi (2017) in his doctoral dissertation.

The Metalinguistic Knowledge test is comprised of two main parts. The first part of the test intends to collect demographic information about test participants and includes questions related to their gender, grade level and curriculum courses regarding MLK that they have taken by then. The second part of the test consists of three subsections (see Table 3). The first section intends to get an idea about participants' knowledge about grammatical categories and functions. This section has two subheadings. While participants are asked to choose one instance of the grammatical item requested in a given sentence in the first part, they just underline the item requested in brackets in the following four sentences. The second one includes fifteen English sentences. Each of these sentences has a mistake and participants are requested to describe the rules that have been violated and rewrite the faulty part correctly. In the third section, there are 45 multiple-choice questions to measure the participants' ability to understand the function of words and phrases in sentences. Each item in this test has two sentences: the first one is

called 'key sentence' and one word of it is printed in capital letters; the second sentence has five underlined words. The participants are asked to find the one that has the same function with the word or phrase in the key sentence from these underlined words in the second sentence. The test includes of 94 items in total.

The questions intend to test the grammatical features generally encountered in the pedagogical grammar content of English language. More specifically, the questions examine participants' knowledge about word classes, grammatical roles, clauses and phrases at sentence level within the sections related to term knowledge. The section aiming to measure the rule knowledge of participants includes questions related to adjective & adverbs, pronouns, uses of tenses, comparatives & superlatives, articles, relative clauses, gerund & infinitives, and conjunctions. All of these grammar rules are also tested at sentence level.

There were three critical reasons for choosing the test used by Alderson and Horák (2010) in the present study. Firstly, this test had already been applied in their own study which was a case that increased the reliability of the test. Also, for the current study, Kuder-Richardson split half test (KR-21) was used to measure internal consistency reliability as the test contains dichotomous variables, (i.e. the difficulty level of each test item is considered equal and the items are marked as right or wrong (Creswell, 2012)). KR-21 coefficient was computed as 0.76 for the test, demonstrating that the instrument and its items had a satisfactory level of reliability (Kuder & Richardson, 1937). Secondly, the test included appropriate items to measure MLK in terms of explicit grammatical knowledge about language, which proved that it was compatible with the purposes of the present study and thus, it had content validity. Lastly, in the test there were different styles of items in order to measure MLK such as writing grammatical rules, giving examples to the requested terms and finding the word function. So, it could be said that the test had construct validity, as well.

The interviews. Semi-structured, in-depth interviews were conducted individually with each interviewee for the qualitative part of the study and prospective English language teachers were requested to reply 6 open-ended questions to be able to reflect their opinions about the impact and necessity of metalinguistic knowledge on their profession in detail.

Maccoby and Maccoby (1954) define interview as the interviewer's conversation with interviewee(s) so as to learn their opinions, beliefs and

explanations about a subject or a question. Among the types of interview, Brinkmann (2013) states for semi-structured interviews that some structure and questions based on the purpose and interest of the research are prepared for a semi-structured interview; but during the interview, the researcher takes a flexible stance on condition of adhering to the prepared structure and provides the interviewees with an opportunity to give their more spontaneous explanations.

In the current study, using semi-structured interview to collect data from the interviewees was beneficial because of the following reasons: i) the method provided high response quality ii) allowed the interviewee(s) to ask clarification questions when they need, iii) gave the interviewer the freedom of altering the sequence of the questions according to given responses, iv) provided the interviewees some space to talk when they wanted to touch upon additional topics or areas. Besides that, conducting one-to-one interviews was advantageous as well, in that the interviewees gave responses reflecting their own views without being influenced by someone else in the environment (Creswell, 2012, p.218).

The open-ended questions asked in the interview were produced by the researcher in line with the purpose of the study by reviewing literature and they were checked by the research supervisor (see Appendix C for the interview questions in English). In addition, these questions were translated into Turkish by the researcher and were checked one more time by the research supervisor in order not to allow any confusion during the interview (see Appendix D for the interview questions in Turkish). These questions are listed below:

Interview Questions

1. What do you think metalinguistic knowledge means in ELT context?
2. How would you describe your MLK in terms of your explicit grammar knowledge?
3. Do you think that you will get sufficient grammar knowledge until you graduate from this department? If yes/no, why?
4. How would you evaluate the sufficiency of your MLK for teaching English language grammar effectively?
5. Is it important for English teachers to have metalinguistic knowledge and how does this knowledge affect their teaching ability?

6. What could be the possible difficulties that non-native English language teachers have with teaching grammar?

While the 1st question above intended to measure the awareness levels of the pre-service English language teachers about metalinguistic knowledge as a concept, the 2nd, 3rd and 4th questions required students to evaluate their own metalinguistic knowledge level. These four interview questions were for finding an answer to the fourth research question of the study. The 5th and 6th interview questions were aimed at learning the opinions of the participants about how metalinguistic knowledge impacts their teaching practices on the basis of grammar teaching, which were referred to the fifth research question of the study.

Table 4

Data Collection Instruments

Research Questions	Instruments
Q1-Q3	Metalinguistic Knowledge Test
Q4-Q5	Semi-structured interviews

Data Collection Procedure and Analysis

This section provides detailed information about how the data collection procedure was conducted and how the obtained results were analyzed.

Data collection procedure. The data were collected during June in the spring semester of 2017-2018 academic year from some of the fourth grade students and during October in the fall semester of 2018-2019 academic year from the second, third and fourth grade students at Hacettepe University. Before starting to collect data, an e-mail was sent to one of the developers of the Metalinguistic Knowledge test, Charles Alderson in order to ask for a permission to use the test in the present study; however, he could not be reached. Therefore, another email with the same purpose was sent to the Richard Hudson, who had used this test in another study as a co-author with Charles Alderson before, and the necessary permission was granted by him (see Appendix B). After that, an application with necessary documents was submitted to Hacettepe University Ethics Commission for the approval of the study in terms of compliance with the ethical principles of Hacettepe University. After receiving approval from the commission (see Appendix G), the data collection process was given a start.

The data were collected at Hacettepe University, Faculty of Education, Department of English Language Teaching. With the permission of the course lecturers to apply the test to the students during their class hour, the researcher visited the classes and gave information about the test in relation to the purpose of the research. After the students were provided with the confidentiality of their test scores, an official consent form was delivered to all of the volunteer participants to gain their consent (see Appendix E). The tests were distributed and asked to be filled by participants in one session in a classroom environment where the researcher herself was present. The presence of the researcher was expected to be beneficial in terms of immediate clarification of the obscure points during data collection although the participants were expected to be at the level of language that can understand the questions in the test. 2 different sections from 2nd grade and 3 different sections from 3rd and 4th grades were included in the study. The researcher visited students during different courses in different weeks since all the students could not be reached at once. The participants had been allocated 50 minutes in total to complete the test and they finished the test between 30-50 minutes on average. When all of the participants had submitted the completed tests to the researcher, they were appreciated for their contributions. After that, the students were also informed about the interviews which would constitute the qualitative part of the study, and were asked whether they would like to take part in the second stage of the study. The quantitative data collection part was completed by receiving the contact information of the volunteer students for the interview.

The interviews were conducted with 18 pre-service English language teachers who were selected from those whose availability was confirmed one more time via previously received contact information. The interviews were held at a place and time determined jointly with the interviewees. It was taken into consideration that the place where the interviews were held was far from anything that may constitute an impediment for the interviews. Obtaining comprehensive and detailed statements during the interviews was crucial in order to achieve reliable and valid results at the end of the research process. For this reason, the interviews were done in Turkish, native language of the interviewees, considering the fact that the interviewees may not feel comfortable and may not be able to express their thoughts extensively and elaborately in English.

Before interview process, the interviewees were informed about the purpose of the study and the type of the questions to be asked during the interview and it was also guaranteed that their names would be kept anonymous while reporting the results. The interviewees signed one another consent form indicating that they would participate in interviews voluntarily (see Appendix F). There were 6 guiding open-ended questions that were pre-prepared to be asked. However, since the semi-structured model was adopted, various probes were applied when needed in order to enhance the qualitative data during interviews. Interviews lasted for approximately 8 minutes for each interviewee and recorded with a voice recorder. During the interview, the researcher was careful not to interfere with the process, especially while the interviewee was talking about the question, to avoid any guiding attitude. After all the interviews were conducted and the data were collected, the researcher firstly transcribed the obtained Turkish data and then translated it into English. The transcripts translated into English were re-sent to participants and each of them was requested to confirm the translations of their statements. The analysis process began with the confirmation granted from each interviewee.

Data analysis. In this study conducted through a mixed methods research approach and quantitative and qualitative data analysis were performed respectively.

Quantitative data analysis. In order to conduct analysis for the quantitative part of the study, the collected data had to be scored first. The researcher examined the each participant's test by herself. Each correct answer in the test was worth 1 point and each wrong answer was worth 0 point. The questions that the participants left blank by not writing anything or selecting any option were thought as wrong and worth 0 point, as well. The answer key of this test was prepared by the researcher. At the same time, the test was sent to two field experts separately and each of them was requested to prepare an answer key for the test, as well. Then, the answer keys from two field experts and the researcher were compared. By seeing that, all of the three answer keys are the same, it was considered that the answer key was true. Lastly, the research supervisor was also consulted in order to verify the answers of the test.

The questions that measured term knowledge had certain answers, so the evaluation process was very easy and fast without causing any false notion.

However, it was a little more challenging to evaluate the questions that the participants were expected to write the correct grammar rules. In these questions, it was a must for the participants to provide correct terminological statements while explaining the grammatical rule which was broken. So, the first thing to note was whether the answers contained correct term/s while stating the correct rule. The participants who did not provide correct term/s in their rules were awarded 0 point although they could explain the mistake in the sentence. For example, in the sentence “I’ll tell you as soon as I’ll know”, which is the 12 numbered question of the 2nd section in the test, the grammatical error was expected to be explained as follows: “In the subordinate clause, we use a present tense to refer to the future.” Therefore, the answers containing the correct terms similar to those and trying to provide this meaning in the explanation were accepted as correct answers such as:

“After conjunction, you cannot use future tense.” (P29),

“Adverbial clause must be used in present tense instead of future tense.”
(P30)

“After “as soon as”, “will” is not used because it is a conjunction”. (P104)

However, responses given as follows were considered false:

“Wrong tense after as soon as” (P26)

“Wrong verb using” (P33)

“Simple present tense must be used.” (P42)

Besides that, the participants who could not explain the rule correctly were also awarded 0 point even when they inserted correct grammar term/s in their answers.

Descriptive statistics were used in order to analyze the quantitative data based on test scores obtained from the metalinguistic knowledge test. After the data were entered into the SPSS program, the normality test was performed both for the scores in each section and the total scores covering all sections separately in order to check if the data showed a normal distribution because this distribution would determine whether to use parametric or nonparametric tests in the analysis part. In the normality test, Skewness-Kurtosis values were taken into account. According to Kim (2013), for medium-sized samples ($50 < n < 300$), Z-value below

3.29, which corresponds with alpha level 0.05, concludes that the distribution of the sample is normal. In reference to this, calculated values indicated that the scores in each section and total scores of the whole test were normally distributed (Table 5).

Table 5

Normality Values for Metalinguistic Knowledge Test

	Skewness	SE _{skewness}	Z _{skewness}	Kurtosis	SE _{kurtosis}	Z _{kurtosis}
Section 1	-.856	.221	-3.87	.076	.438	0.17
Section 2	-.073	.221	-0.33	-.549	.438	-1.25
Section 3	-.212	.221	-0.95	-.791	.438	-1.80
Total	-.217	.221	-0.98	-.642	.438	1.46

*Lilliefors significance correct

After the utility of the data was confirmed by the normality test and reliability value, descriptive statistics were applied to analyze quantitative data. Since it was a normally distributed data set, analyses were performed using parametric tests. The items that include demographic information (i.e. gender and grade level), which is in the first part of the test, were assessed at first. The participants were also asked to mark the course/s in the options that they had taken before or were taking in that semester in this part. Although this item was not subjected to assessment, it had not been removed from the test in order not to change the original structure of the test. Descriptive statistics were also applied for the 1st research question through calculating mean values, percentages and maximum and minimum scores for each section and items in the test. Moreover, cut-off scores were specified by dividing the total sum into tertiles (Dawson & Weiss, 2012).

The 2nd research question intended to determine whether there were any statistically significant differences between the means of grade levels. Since three different grade levels were included in the research, a one-way ANOVA test was carried out. After the results of the ANOVA test were determined to be significant, it was followed by a post hoc test in order to see where the differences exactly occurred. Scheffé's post hoc test was appropriate to apply as the sample sizes in the grade levels were unequal (Keselman & Rogan, 1978).

The 3rd research question of the study required the identification of the effect of gender on metalinguistic knowledge; therefore independent sample T-

tests were adopted to compare mean differences of MLK between male and female participants.

Qualitative data analysis. At the beginning of the qualitative data analysis, the transcription of the obtained data and its translation into English language were performed respectively in order to make it ready for the analysis. During the process, a hand analysis was preferred seeing that it was relatively small data (i.e. 22 pages). The data were evaluated by applying thematic analysis which requires the identification of codes at first. Therefore, after the codes were generated, they were categorized conforming to underlying themes by the researcher. It would be appropriate to mention here the definition of the thematic analysis as an independent qualitative descriptive approach. Braun and Clarke describe it as “a method for identifying, analyzing and reporting patterns (themes) within data.” (Braun & Clarke, 2006, p. 79). They also give a detailed description of a *theme* as follows: “A theme captures something important about the data in relation to the research question, and represents some level of patterned response or meaning within the data set” (p.82). As King (2004) states, in thematic analysis, researchers can work more flexibly with less procedures and adjust this technique to their research requirements. This can be seen as the reason why the researcher preferred to use this analysis in her study.

The coding was made twice with one-week interval by the same researcher and the determined themes were controlled by the research supervisor, which is called ‘peer debriefing’ method that requires the revision of the qualitative research process with its all aspects by an expert to ensure accuracy and trustworthiness (Creswell & Miller, 2000). During this process, three randomly chosen transcripts were also re-analyzed by the research supervisor and the accuracy of the themes was checked by comparing with the researcher’s analysis. The results were reported via narrative discussion by including quotes from the interview data.

Chapter 4

Findings

Introduction

This chapter is designed to present the analysis of the data and research findings with regard to the purpose of the study. A test and an interview were conducted successively in order to investigate MLK levels of pre-service teachers of English and their perceptions of their own MLK. As it is mentioned in previous parts of the study, metalinguistic knowledge is used as an umbrella term including terminology for grammatical, phonological and vocabulary knowledge. However, this study only focused on the grammatical knowledge of the target group and the qualitative and quantitative findings of the research in this respect are presented under two separate headings below.

Analysis of the Quantitative Data

In order to further investigate the MLK levels of pre-service teachers of English, a MLK test was conducted. The obtained data were analyzed through descriptive statistics and ANOVA tests by referring to factors such as gender and class which were thought to affect the students' MLK levels.

Results of data analysis for research question 1. How much metalanguage (as measured by a test) do the Turkish pre-service teachers of English have? The first research question intended to measure how much metalanguage of Turkish pre-service teachers of English had. The test consisted of three sections in total and each of the sections aimed to determine metalinguistic gains with different question types. In the first section, which was scored in two separate parts as 15 short-answer questions and 4 elective questions, participants were asked to write one example of the grammatical item requested. In the second section, there were 15 open-ended questions asking students to correct the faulty part of the sentence and explain the grammar rule that was violated, and this section was evaluated on a total of 30 points. In the third section, participants answered 45 multiple-choice questions by trying to find suitable functions of words. In each section containing different numbers of questions, the correct answers were scored as 1 and the wrong answers were scored as 0.

According to their scores out of 94 points in total, the participants' levels were determined as high, moderate and low. While determining the levels of the participants, cut-off scores were computed by dividing the total sum into tertiles, and the point ranges were created according to these cut-off scores. Thus, 0-31 point range was defined as low level, 32-64 point range as moderate level and 65-94 point range as high level. Table 6 indicates the participants' overall performance in the test.

Table 6

Pre-service Teachers' Overall Performance in the Test

Sections	N	Total Items	Mean	%	Min	Max	SD
Grammatical Categories & Functions	120	19	11.48	60.42%	.00	18.0	4.48
Parts of Speech	120	15	9.38	62.53%	.00	15.0	4.1
Functions	120	4	2.10	52.5%	.00	4.00	0.83
Error Identification	120	30	18.91	63.03%	8.00	29.00	4.66
Correction	120	15	12.01	80.06%	5.00	15.00	1.86
Rule Writing	120	15	6.90	46.0%	.00	14.00	3.72
The Function of Words & Phrases	120	45	25.80	57.03%	13.00	41.00	5.93
Total	120	94	56.20	59.73%	28.00	80.00	11.98

The pre-service teachers' performance in the test was around moderate level as the overall mean score of correct answers was 56.20 with a standard deviation (*SD*) of 11.98. Considering the range of scores, 1.7% of the sample scored below 31 points; 70.8% scored between moderate level points and 27.5% scored above 65 points, which indicated that they had high level of MLK (Table7).

Table 7

Pre-service Teachers' MLK Levels with reference to Their Scores

Point ranges	Levels	N	%
0-31	Low	2	1.7%
32-64	Moderate	85	70.8%
65-94	High	33	27.5%

Research question 1 was further investigated after looking at the overall picture of metalinguistic knowledge levels of participants. In the first section of the test, consisting of two sub-sections, pre-service teachers of English tried to find out parts of speech and grammatical functions in a sentence. Table 8 demonstrates the participants' correct response rate to each item in detail.

Table 8

Correct Response Percentages regarding Parts of Speech and Grammatical Functions

	Parts of Speech/ Grammatical Functions	Correct %
PARTS OF SPEECH	Verb	85.0
	Noun	89.2
	Countable Noun	85.0
	Passive verb	84.2
	Adjective	81.7
	Adverb	58.3
	Definite Article	51.7
	Indefinite Article	45.0
	Preposition	81.7
	Relative Pronoun	65.0
	Auxiliary Verb	48.3
	Past Participle	30.8
	Conjunction	69.2
	Finite Verb	35.8
	Infinitive Verb	27.5
FUNCTIONS	Subject	80.0
	Predicate	15.0
	Direct Object	82.5
	Indirect Object	32.5

According to the correct response percentages on Table 8, relatively weak performances were seen in Indefinite Article, Auxiliary Verb, Past Participle, Finite Verb and Infinitive Verb among parts of speech measured in this test. When the items in the functions part were examined, it was easily seen that the participants had difficulty in identifying Predicate and Indirect Object during the test.

Results of data analysis for research question 2. Is there a significant difference in MLK of Turkish pre-service teachers of English by grade level?

The second research question intended to investigate the effect of grade levels on MLK improvement. The participants in the study were in the 2nd, 3rd and 4th grades. A one-way between subjects ANOVA was conducted to compare the effect of the 3 grade levels on the pre-service teachers' MLK levels.

Table 9

Descriptive Statistics of Dependent Variables for Grade Levels of the Participants

Sections	Grades	N	M	SD	df	F	p
Grammatical Categories & Functions	2 nd grade	48	9.37	4.33	117	11.98	.000
	3 rd grade	19	11.47	5.01			
	4 th grade	53	13.39	3.54			
SRGI	2 nd grade	48	7.41	3.95	117	12.87	.000
	3 rd grade	19	9.21	4.70			
	4 th grade	53	11.22	3.19			
URGI	2 nd grade	48	1.95	.89	117	1.24	.291
	3 rd grade	19	2.26	.73			
	4 th grade	53	2.16	.80			
Error Identification	2 nd grade	48	16.58	4.11	117	12.61	.000
	3 rd grade	19	19.52	4.71			
	4 th grade	53	20.81	4.22			
Correction	2 nd grade	48	11.77	1.77	117	.899	.410
	3 rd grade	19	11.94	1.95			
	4 th grade	53	12.26	1.90			
Rule Writing	2 nd grade	48	4.81	3.39	117	16.46	.000
	3 rd grade	19	7.57	3.79			
	4 th grade	53	8.54	3.05			
The Function of Words & Phrases	2 nd grade	48	22.47	5.03	117	19.31	.000
	3 rd grade	19	25.52	6.03			
	4 th grade	53	28.90	5.01			
Total	2 nd grade	48	48.43	10.18	117	27.23	.000
	3 rd grade	19	56.52	12.52			
	4 th grade	53	63.11	8.72			

$p < 0.05$

The results of the one-way ANOVA analysis indicated that there was a significant effect of grade level on MLK level in terms of total scores at the $p < 0.05$ level for the three grades [$F(2, 117) = 27.23, p = .000$].

Following the one-way ANOVA variance, Post hoc analyses were performed by using Scheffé in order to determine where the difference lay.

Table 10

ANOVA for Differences in MLK Levels based on Grade Levels

Group	N	M	SD	Scheffé Comparisons		
				2 nd grade	3 rd grade	4 th grade
2 nd grade	48	48.43	10.18		.013	.000
3 rd grade	19	56.52	12.52	.013		.051
4 th grade	53	63.11	8.72	.000	.051	

$p < 0.05$

As shown in Table 10, Post hoc analyses using the Scheffé post hoc criterion for significance indicated that the mean score of the 2nd grade participants ($M = 48.43, SD = 10.18$) was significantly different from the 3rd grade participants ($M = 56.52, SD = 12.52$). Likewise, the mean score of 4th grade participants ($M = 63.11, SD = 8.72$) significantly differed from the 2nd and 3rd graders. However, there was not a significant difference between the mean scores of 3rd and 4th grades. Taken together, these results suggest that grade level really had an effect on metalinguistic knowledge level. Specifically, our results suggested that as the grade level of the students increased, their metalinguistic knowledge level increased, as well. However, it should be noted that while 2nd and 3rd grades had a significant effect on the MLK, 4th grade did not appear to significantly increase MLK.

Results of data analysis for research question 3. Is there a significant difference in MLK of Turkish pre-service teachers of English by gender? The third research question of the study aimed to find out whether there was a difference in MLK level of the pre-service teachers of English based on gender. An independent sample t-test was conducted to compare mean differences of metalinguistic knowledge between male and female participants.

Table 11

Descriptive Statistics of Dependent Variables for Male and Female Participants

Sections	Gender	N	M	SD	t	df	p
Grammatical Categories & Functions	Male	35	10.6	5.0	1.34	118	.182
	Female	85	11.8	4.2			
SRGI	Male	35	8.6	4.5	1.28	118	.200
	Female	85	9.6	3.9			
URGI	Male	35	2.0	.87	.84	118	.402
	Female	85	2.1	.81			
Error Identification	Male	35	19.1	4.4	-.38	118	.703
	Female	85	18.8	4.7			
Correction	Male	35	12.3	1.6	-1.23	118	.219
	Female	85	11.8	1.9			
Rule Writing	Male	35	6.8	3.6	.13	118	.893
	Female	85	6.9	3.7			
The Function of Words & Phrases	Male	35	26.4	4.8	-.90	82.74	.367
	Female	85	25.5	6.3			
Total	Male	35	56.2	11.5	-.05	118	.960
	Female	85	56.1	12.2			

As Table 11 indicates, there was not a significant difference in male ($M = 56.2$, $SD = 11.5$) and female ($M = 56.1$, $SD = 12.2$) pre-service teachers' overall scores, conditions; $t(118) = -0.05$, $p = 0.96$ although male participants' score was slightly higher.

When the results were examined on the basis of the sections, it was determined that females had higher scores only in the first section with all its sub-parts although it was not significant statistically; $M = 10.6$, $SD = 5.0$, $F = 11.8$, $SD = 4.2$.

Analysis of the Qualitative Data

Semi-structured interviews were held with 18 randomly chosen pre-service teachers of English who had taken the MLK test previously with the aim of identifying whether the participants know what metalinguistic knowledge means, their perceptions about their own metalinguistic knowledge levels and opinions about the impact of metalinguistic knowledge on their grammar teaching practices and lastly, whether they find the training and contents of the courses in English

language teaching department sufficient for this type of knowledge. By analyzing the qualitative data obtained through the interviews via selective coding, a number of themes were determined and the researcher gained insight into the participants' perceptions of metalinguistic knowledge through these themes. The results of the interviews and the themes are presented and discussed under each interview question in detail below.

Results of data analysis for research question 4. Are Turkish pre-service teachers of English aware of their own metalinguistic knowledge?

The fourth question was specifically related to the perceived meaning of metalinguistic knowledge by pre-service teachers of English and their level of awareness. Four of six open-ended interview questions aimed at finding an answer to this research question during the interview. The themes that were prominent in participants' answers to the first four questions were as follows:

-
- Awareness of MLK as a concept
 - Confidence in metalanguage
 - Need for improvement
 - The sufficiency of the Teaching Training Program
-

Figure 4. Key themes that emerged from participants' interviews

Awareness of MLK as a concept. The unawareness of metalinguistic knowledge as a concept was the most noticeable inference from the interviewees' responses under this theme. When their responses to the question "Do you know what metalinguistic knowledge means in ELT context?" were analyzed, it was easily understood that most of the pre-service teachers of English do not have the right idea about what metalinguistic knowledge means. While six of the interviewees clearly stated that they did not know what it is, the others made different predictions and comments on its meaning. The most repeated answer was that "Metalinguistic knowledge is advanced grammar." Other answers to this question were as follows:

"It means that we are able to explain the language we know in a high level both contextually and structurally." (P5)

"It should be related to the rules." (P12)

“Doesn't it mean to learn English in a way that you learn Turkish? I mean, like dividing the sentences into their elements...” (P13)

“Metalinguistic knowledge...it is how the function and mission of language correlate.” (P14)

Among all of the pre-service teachers, five of them made almost right definitions by stating that metalinguistic knowledge is the knowledge about the grammatical terminology of the language.

Confidence in metalanguage. One of the other themes emerged from the interviewees' responses was that they feel lack of metalanguage. After the definition of metalinguistic knowledge was made to participants who could not accurately identify what it means, all pre-service teachers were asked to describe their own knowledge levels of grammatical terminology. As the participants had also had an idea about it by solving the metalinguistic test before the interview, they stated their opinions about their levels quite clearly. 11 of the pre-service teachers stated that their terminological knowledge levels were not sufficient and they needed to improve themselves by specifying some reasons with the following statements:

“I can't name what I know.” (P8)

“I can describe the mistakes, but I don't have enough terminology to explain it.”(P9)

“I learned English with current English teaching methods which put emphasis on communicative skills; that's why I don't have much control on terminology.” (P15)

“I am not interested in these kinds of things. So, mine is too low for me.” (P16)

“These things are always superficially taught. So, I couldn't give totally true answer to every term.” (P17)

On the other hand, two of the participants thought that their levels could vary depending on the language strands (i.e. listening, speaking, writing and reading), and they made the following comments:

“I am not very good at speaking, but I am good at reading and writing.” (P5)

“When we look at the education that I received in Turkey, it is generally grammar-oriented education. So, I think, while I'm good at receptive skills, I am not good at productive skills.”(P7)

While most of the participants had serious doubts about their MLK levels, five of them said that their levels were good for them and they could handle most of the terminological problems that they would encounter both in their academic lives and in their own classes.

Need for improvement. The participants and especially the fourth grade students were emphasized that they would graduate in a few months and were asked whether they saw themselves sufficient for teaching English effectively or not. Some of the interviewees thought that their level of grammar knowledge would not be sufficient for teaching English effectively. While seven of them clearly said that “I don't think that it is enough.”; three of them stated that whether it was enough or not depended on the level they would teach. A few responses from which this opinion deduced were as follows:

“My grammar knowledge is only enough for A1 or A2 level.” (P2)

“I don't know how to teach an advanced level class, but I think, I can have enough grammar from beginning to B2.” (P3)

“I can teach in primary, secondary and high schools.” (P12)

One of the interviewees answered this question by taking into consideration the importance of information transfer in teaching and emphasized that they, as teachers, needed terminological knowledge in order to be able to transfer their knowledge to the students effectively while teaching in English. This participant was aware that daily language and language of teaching in classroom is different and expressed her thoughts about this subject by saying that“...I made Erasmus last year so I think, I'm enough to talk, but I have a bit of trouble in the transfer of knowledge. I have to put something on it.”(P18).

Most of these prospective teachers were aware of the need to improve themselves and thought that teaching experience would be a major contribution to their development, as well. P7, for example, said, “I'm going to test myself in a real class environment next semester. Now, we are just making observations during training period. I think, we can only enhance this knowledge with experience.”

Although there were a large number of participants who did not find their level of knowledge satisfactory and focused on developing themselves, a few of them thought that grammar and terminology should not be overestimated. One of these interviewees, P8, supposed that a quick revision on the grammar subject of that day before the class time would help and so, he did not need to study on grammar that much.

The sufficiency of teaching training program. The pre-service teachers' expectations from the teaching training program were another common theme emerged from their responses when they were particularly asked to state their opinions on their metalinguistic knowledge gains from their department during the 4 years of education. The interviewees were aware that they needed to improve themselves on metalinguistic knowledge; however, their views on how to achieve this development differed. Some of them believed that their development on grammar was dependent on their own efforts rather than on what the department at which they were studying could provide them. Some expressions that reflected this opinion were as follows:

“For teaching, yes I can get sufficient grammar knowledge until graduation. I mean, it depends on me. The more I read, the more I investigate, the more knowledge I have.” (P3)

“I don't think this is about the department. It's more about myself.” (P14)

“Yes, that's enough, but it's up to me. So I think I need to add something, but department courses are enough.” (P18)

On the other hand, there were a considerable amount of pre-service teachers (8 out of 18) as well, who had had more expectations from the department. These interviewees stated that the department generally focused on courses about educational sciences as a nature of it, so they felt the necessity of the courses on metalinguistic knowledge. A few students said that although there were already some courses in the syllabus based on MLK, they were done superficially and not processed intensively. For example, P17 said, “...I don't think I can be competent unless I make an extra effort, because the courses are very superficial about it or responsibility is given to us. Some lecturers just show a simple presentation about the topic of the day and finish the course.” and also he expressed his dissatisfaction by asserting that the same subjects were repeated

throughout a semester under different titles. The same interviewee also suggested that the inclusion of the topics related to metalinguistic knowledge into the syllabus of some courses might be more useful for students of the department. Similarly, P12 said that they had one or two courses which seemed referring to MLK such as contextual grammar but these courses often included different things, not metalinguistic knowledge or its details.

P16 gave another striking response about her displeasure on this issue and said “I don't think I can be proficient in this knowledge with our current courses. In general we do not focus on this. Besides that, some lecturers at the department usually think that everyone has graduated from the language department of high schools. I'm actually coming from the science and math department. I came here with basic English knowledge. I don't have that metalinguistic knowledge, but they think I have.”

As well as those students who claimed that their current level was below their expectations, there were seven students who were satisfied with the quantity and quality of the courses in the department and asserted that their expectations were met well enough. One of these students (P7) said that when he compared his current level with the level he had started, he noticed the progress. Another one who was very confident about his grammar knowledge said that “Actually, when we started to study here, our English was very good because you need to have enough knowledge of English to enter this department of this university. Here are just the minor details that they add to us and that was just in the freshman year.” (P10)

Results of data analysis for research question 5. What are their perceptions about the impact of their metalinguistic knowledge on their teaching practices as it relates to grammar? The last research question of the study aimed to investigate participants' perceptions about the impact of their metalinguistic knowledge levels on their future grammar teaching practices. Therefore, the interviewees were asked two more open-ended questions.

Firstly, they were requested to predict what challenges they might face in teaching grammar in their future classroom as non-native English language teachers. With this interview question, the researcher wanted to make interviewees reflect upon this topic thoroughly and also to establish a ground for the last interview question. According to the responses obtained, seven of the

interviewees did not think that they would face any challenges in grammar teaching and they explained their idea from different perspectives. Some of their comments were as follows:

“I have never met a teacher who has encountered difficulties while teaching grammar. Even if they don’t know the grammar subject, they study and revise that subject just before the class hour and teach it easily. So, they don’t have difficulties and don’t perceive not having intense grammar knowledge as a problem.”(P8)

“If someone becomes a teacher, he shouldn’t have such difficulties except very extreme situations. She needs to grasp the grammar so that he can be an English teacher.” (P18)

Quite a few of these teachers stated that they learned grammar better and in more detail as it was not their native language and thought that they were more advantageous on teaching grammar compared to native English language teachers. For example P13 said:

“I think, it is easier for non-native teachers, I mean, for us, to teach grammar. Because, English is not our native language and we personally experienced the process of learning this language, as well. So, I can see through the eyes of a learner. That’s why, teaching grammar will be easy for me, not difficult.”

However, there were also some interviewees who thought that they might have some difficulties. When their responses were analyzed, the following themes were emerged referring to the challenges that they might face while teaching grammar.

-
- Inability to explain themselves adequately
 - Inability to differentiate the cultural elements
 - Importance of MLK
-

Figure 5. Key themes that emerged from participants’ interviews

Inability to explain themselves adequately. A common theme among these interviewees’ responses was their feeling of inability to explain themselves adequately while teaching grammar and they attributed it to their speaking and pronunciation competences. They believed that the grammar knowledge that they

had would be useless if they were unable to convey it. P7 said that “In fact, there is a lot to know in English which we do not have in our mother tongue, so we are inadequate to explain most of it; I think it is necessary to live abroad for a while. When a student asks a question, I can hardly explain the question since I am weak in the language of speech although I know the answer.”

These pre-service teachers were doubtful about their ability to explain grammatical structures in English and thought that they would often have to do code-mixing.

Moreover, three of the interviewees emphasized that they had difficulties in naming some grammar topics. They thought that they could teach grammar; however, they also stated that it might be hard to remember the terms and concepts in the rush of the class and therefore, they would prefer to ignore them. Besides, they sincerely admitted to have noticed their deficiency in MLK and to have realized that it affected their ability to formulate grammar rules after having taken the test.

Inability to differentiate the cultural elements. English language and Turkish language come from different language families and have different cultural backgrounds. Four of the interviewees stated that they considered these elements and concepts based on cultural differences as a difficulty that they might experience when they were lecturing, and their responses revealed another common theme. It was emphasized under this theme that these challenges could be found in pronouns on the basis of gender, contextual grammar and discourse.

One of these interviewees, P10, said “We have a problem with the contextual grammar. We may not know what is used where because we don’t know their culture, we didn’t live in a foreign country, we cannot master on the culture of the language. If we compare this foreign culture with the Turkish culture, there can be small conflicts between them. This is the most serious problem, I think.”

Another interviewee (P5) thought that sometimes it could be hard to make sense of some jokes and utterances in English even for English language teachers because of the cultural differences and such discursive contexts could be challenging for teachers in the classroom.

As required by the last interview question, interviewees expressed their thoughts on the importance of metalinguistic knowledge and how it could affect their teaching abilities. The obtained responses formed the following theme.

Importance of MLK. According to the analysis of the responses, 13 of 18 interviewees believed that it was really essential to internalize MLK for English language teachers and it had valuable impacts on their grammar teaching practices. They specified their opinions by supporting with different reasons. Some of these interviewees approached the issue from the perspective of a teacher and emphasized how having this knowledge nourishes the teachers' self-confidence and faith in their professional competence. Some statements of the interviewees were as follows:

"I think it's pretty important because even when you're making a presentation, the more you know about a subject, the more confident you feel and it affects your expression. So, I think if he's a teacher, he should have metalinguistic knowledge." (P2)

"Of course, it is very important. The teacher's teaching ability depends on the flexibility of the teacher and the flexibility of the classroom. As this metalinguistic knowledge will contribute to the teacher's knowledge about his major, it both gives him self-confidence and provides more help in classroom." (P11)

"I think it is very important but we ignore it. When you have more knowledge about your major, you know what you are talking about; therefore, you can explain easily." (P14)

One of these interviewees (P16) especially focused on the time-saving aspect of terminology knowledge and said "Of course, if I have that knowledge, I can certainly transfer what I know to students more easily. Now, to tell my students what I know takes a very long time by using daily language without using terminology. It is also hard and the students may get confused. "

There were those who thought that besides its benefits during lectures in the classroom environment, metalinguistic knowledge could be useful for material development.

Interviewees considering this issue in terms of language learners stated that teaching terminological terms to the learners would help them to categorize the

grammar subjects or topics easily and this would provide them to learn the language more efficiently and better.

All in all, the interviewees supporting the importance of MLK either in terms of teacher or in terms of language learners were of the opinion that the more they could develop themselves as language teachers, the better it was.

There were four interviewees who could not make a certain decision on the necessity of metalinguistic knowledge. According to them, the need to use MLK arises especially when they are teaching to the advanced level learners or the students at English language departments of universities. However, they believed that they would not have to have MLK if they taught basic English or they worked at primary and high schools in Turkey. Moreover, P17 stated that she felt like she was going to be a little bit confused about how to tell the subjects to an elementary level student as it would be hard to simplify the language she used. Another interviewee (P6) commented on the issue of using terminology frequently in classes as follows: “Even if I have metalinguistic knowledge, I cannot use it when the learners don’t have it in their native language, in Turkish. It is important for me because the learners who know terminology will understand better if I use it while lecturing, but if the students do not know the terms, it will not work.”

Another belief reflected in the responses was that metalinguistic knowledge was of no use in contemporary English language teaching methods. The three interviewees supporting this belief thought that metalinguistic knowledge was an inevitable fact in outdated ELT methods such as grammar translation method since the teacher is seen as the source of the knowledge and do not have the luxury of not knowing about language terminology in those methods; however, they stated that contemporary methods focusing on implicit teaching did not require metalinguistic knowledge a lot. These methods are generally based on communicative approach and in favour of developing communication skills. Hence, in modern context, metalinguistic knowledge is somewhat unnecessary according to their views.

Chapter 5

Discussion, Conclusion and Suggestions

Introduction

This chapter presents the discussion of both quantitative and qualitative findings of the study in relation with the relevant literature. Following that, some implications of the study and suggestions for further studies are presented respectively.

Discussion of the Results

Discussion of quantitative findings. The present study was mainly carried out to determine pre-service English language teachers' metalinguistic knowledge in a state university in Turkey seeking the benefits of having metalinguistic knowledge and being aware of it on language teaching practices. Secondly, it aimed to explore their awareness of both MLK itself and their own MLK and to have an idea about their opinions on this concept. Studies have shown that having metalinguistic knowledge is essential in terms of both raising language awareness in language teachers and helping them to teach language effectively. Andrews (2003) emphasizes the importance of knowing the underlying system of a language, and particularly having subject matter knowledge, which can be considered as the essence of the language system, for effective teaching. Therefore, it is clear that a language teacher should know the language as well as about the language more than a learner so that they can know what to transfer and how to transfer it in a teaching environment (Shulman, 1986).

Considering the above-mentioned pros of having MLK, the first research question of the study was prepared to find out the participants' MLK levels. In the Metalinguistic Knowledge Test conducted to measure MLK levels, the overall mean score of the participants was 56.20, which indicated that the pre-service teachers of English in mentioned context had moderate-level metalinguistic knowledge. While 2 pre-service teachers (1.7%) scored below 31 points and thus reflecting a low level of MLK, 85 of 120 (70.8%) participants obtained scores between 32-64 points in the test. This percentage proved that the participants' scores mostly centered around moderate level. Only 33 participants (27.5%) scored above 65 points and reflected high level of MLK. With reference to these

percentages, it was concluded that 72.5% of the participants did not have sufficient MLK while 27.5% had.

The results showing pre-service teachers' MLK levels in the present study were consistent with the results of Altınsoy and Boyraz's (2017) study in which the results demonstrated that the majority of the ELT students in a state university in Turkey had an intermediate level of MLK. The situation was also similar for pre-service teachers in other contexts such as Hong Kong (Andrews, 1999b), Saudi Arabia (Almarshedi, 2017) and Poland (Wach, 2014) in which they did not have sufficient MLK, as well.

When the scores in each section and sub-parts in the test were examined separately, it was observed that the participants gained close scores in each of three sections (see Table 6). However, since the difference between the scores obtained in the sub-parts of Section 2 (Error Correction) was particularly noticeable, examining this section in detail was crucial for the discussion of the findings. Between the sub-parts of Section 2, the participants experienced the most difficulty in explaining the broken grammatical rule in sentences by using terminology. The participants tried to write the rules; however, most of them did not include metalinguistic terms into their explanations. Based on scoring procedure, 0 point was given to these answers. Therefore, the mean score was computed 6.90 out of 15 points, equivalent to 46.0% success rate. On the other hand, participants had the highest success rate in the part that required them to correct faulty parts in the sentences. They scored 12.01 points on average out of 15, which corresponds to 80.06% success rate. Both of these sub-parts in which the participants had the highest and the lowest success rates required productive knowledge.

Based on the research of Almarshedi (2017), the reason for the gap between these two parts can be due to the difference between the degree of applying cognitive demands. Any language user who can apply an average level of cognitive demand is expected to recognize and correct the faulty part; however, this is certainly not enough for someone who needs to formulate and write the grammatical rule. Formulating rules requires appropriate metalinguistic knowledge and thus, it is a must for a language teacher to have such knowledge. Similar results were gained in some other studies and it was concluded that the most

difficult task for participants was the one that required productive metalanguage-use for formulation of rules (Almarshedi, 2017; Lan, 2011; Wach, 2014).

Another investigation for the first research question was the percentages of the correct answers the pre-service teachers gave to the parts of speech and grammatical functions in the first section of the test. According to the results, they had weaknesses in areas like *Indefinite Article*, *Auxiliary Verb*, *Past Participle*, *Finite Verb*, *Infinitive Verb* and *Predicate*. On the other hand, they were by far more successful at areas like *Verb*, *Noun*, *Adjective*, *Adverb*, *Subject* and *Direct Object*. These results were consistent with the results of Alderson & Horak (2010) which showed non-UK students had difficulty at identifying these categories, as well. The reason for the pre-service teachers' relatively better performance on subsequent group can be more frequent use of these grammatical terms. So, they might have easily remembered them and identified.

The study also tried to investigate the effect of grade levels on pre-service teachers' MLK. The ANOVA results indicated that the grade levels had significant effect on MLK and that participants' MLK levels increased as the grade level increased in each section of the test. When these results were further analyzed via post hoc test in order to see which grade had the most effect on MLK, it was found that the students obtained the most gain in MLK in the 3rd grade. Although there was a significant difference between the total mean scores of all grades, this difference mainly arose from the scores obtained by 2nd and 3rd grade students (see Table 10). Therefore, these results can be interpreted as *Contextual Grammar I-II* and *Linguistics I-II* courses, which were completed in the 1st and 2nd grade (i.e. 3rd and 4th grade students had already finished these courses but 2nd grade students were still continuing to attend these courses), had the greatest effect on the improvement of MLK. On the other hand, *Teaching Language Skills I-II* and *School Experience* courses taken in the 4th grade did not cause a statistically significant difference in the scores.

As seen and mentioned previously in the literature review, the significant effect of courses that provides students with theoretical knowledge (e.g. linguistics and applied linguistics) on the improvement of MLK has been proven in some studies. (Angelova, 2005; Bigelow & Ranney, 2005; Borg, 2005). Besides that, there have also been studies which advocate that training practices and teaching experience have a major impact on the improvement of MLK (Almarshedi, 2017;

Andrews, 1999b). According to the results of the present study, although the courses that provided students with teaching experience during training period (e.g. *Teaching of Language Skills, School Experience*) had a small effect on the development of MLK; this effect was still not statistically significant.

The present study also aimed to determine whether there was a difference between pre-service teachers' MLK levels in terms of gender. Gender is one of the sociolinguistic factors that can influence second/foreign language learning (Ellis, 2008) as it is one of the major aspects of "both individual differences and social and identity issues" (Rivas, 2017, p.9). It has been the subject of many studies in second/ foreign language learning. As well as studies indicating the influence of gender difference on second/foreign language achievement tests taken by English language learners (Główka, 2014; Murphy, 2010; Yan, 2009), there have been some in which no difference was observed (Engin, 2012). When the participant group of the study was taken into consideration (i.e. pre-service English language teachers), the similar insights were encountered. For instance, in a study carried out to assess pre-service English language teachers' technological pedagogical content knowledge (TPACK) by Öz (2015), it was found that while females significantly outperformed males in pedagogical knowledge, males scored higher in technological knowledge. Also, it was found that females had higher TPACK development.

Considering the influence possibility of gender on MLK level, an independent samples t-test was conducted in the present study and according to the result, a significant difference between male and female pre-service teachers' MLK levels was not observed.

Discussion of qualitative findings. In order to perform an effective language teaching, it is also crucial for language teachers to be aware of their metalinguistic knowledge and their limitations in terms of it as well as having this knowledge. Considering the close relationship between MLK and awareness of MLK, it was thought that gaining insight into pre-service teachers' awareness of MLK would add value and depth to the present study. In the semi-structured interviews conducted for this purpose, pre-service teachers were requested to answer six questions.

The first four questions in the interviews were intended to investigate pre-service teachers' awareness of MLK itself and their own MLK. In the questions,

they were requested to make a definition of MLK (1st interview question), to describe their explicit grammar knowledge as sub-part of MLK (2nd interview question) and contributions of the courses they took or were taking at the department to their MLK (3rd interview question), and lastly to evaluate their MLK sufficiency considering their future teaching practices (4th interview question) respectively. With the last two interview questions, the pre-service teachers were requested to explain their opinions about what kind of difficulties they could experience as non-native English language teachers in teaching English grammar and how MLK could have an impact on their teaching practices.

In the responses that the 18 pre-service teachers gave for the definition of MLK, all of them clearly stated that they had not heard such a concept before. While six of the interviewees gave the response of “I don’t know what it is.”, the rest of them tried to make a prediction based on the name of the concept. The most prominent response among the predictions of the concept was “advanced grammar”. Six pre-service teachers thought that MLK could be another name given to advanced grammar. This response was not surprising since the test contained items related to explicit grammar knowledge as part of MLK; however, these pre-service teachers obviously thought that being able to explain grammatical rules by using terminology, understanding the function of a word in a sentence and finding the requested part of speech were just the indicators of a high-level grammar knowledge and they did not have an idea about metalinguistic aspect of grammatical knowledge. There were also a few pre-service teachers who were able to predict almost the right definition of the concept by stating that it might be the knowledge about the structure and terminology of the language. However, these correct definitions do not imply that they are aware of MLK. As mentioned above, the reason why they were able to make a close definition of the concept even though they had not heard it before was probably due to the sequencing of the techniques used in research process and the name of the concept which somehow suggests its own meaning. The participants had taken the test first and then they were interviewed, which might have inspired them. Thus, it is quite clear that none of the participant pre-service teachers know what MLK is although almost all of them completed the courses which could be related to MLK.

After introducing the concept of MLK to each of the pre-service teachers, the rest of the interview questions were asked respectively.

In their responses, 11 out of 18 pre-service teachers clearly stated that they would not qualify their MLK levels as sufficient. While only five of the interviewees thought that they had sufficient MLK, three of them stated that their knowledge levels depended on the component and strands of the language. For example, one of them (P7) stated that *“I can understand when I hear terminology; however, if I need to use these terms, I have difficulty in remembering these terms”*. Some of the other responses related to this were *“I can’t name what I know”* (P8) and *“I can describe the mistakes but I don’t have enough terminology to explain it”* (P9). These responses supported the results of quantitative data analysis of the present study which indicated that 70.8% of the pre-service teachers had insufficient level of MLK, particularly, productive knowledge of MLK. Thus, these results can be interpreted as their actual MLK level and their perceptions about their own MLK levels are consistent with each other.

However, some of their statements were in contradiction with their perceptions of insufficiency. Although most of them stated that they did not have sufficient level of MLK, they believed that this insufficiency would not be crucial for them unless they taught advanced level learners. They saw themselves qualified enough to be able to handle teaching grammar for elementary and intermediate levels and had confidence in their knowledge for these levels; however, they thought that they would have difficulty in teaching grammar to students with high level of language proficiency. Therefore, it can be inferred that pre-service teachers do not have full confidence in their MLK and feel the necessity of improvement.

In order to further examine their lack of confidence in MLK and try to understand its possible reasons, it was asked to pre-service teachers what kind of situations could be difficult for them as non-native English language teachers with regards to teaching grammar in their future classes. The pre-service teachers thought that they might have difficulty in English speaking and pronunciation and so, in explaining themselves adequately while teaching grammar. Most of them stated that they did not know how to transfer their grammatical knowledge to their future students both at low and high proficiency level classes. While some said that they could not remember every rule and the terminology for advanced

classes, one of them responded to this question from a different point of view and indicated that it could be hard for her to make language simpler while teaching at lower proficiency level classes (P12). There were also some students who remarked that they might have some problems about contextual grammar so they needed to be introduced with the culture of the foreign language that they would teach, as well (n=3). All of these responses clearly indicate one more time that the pre-service teachers do not have confidence in their metalanguage and also they are unaware that one of the factors which will make them feel confident in EFL classroom environment as a teacher is the sound explicit grammatical knowledge along with its terminology (i.e. MLK).

Considering that one of the factors that can influence the pre-service teachers' sufficiency levels and awareness of MLK may be the courses at the ELT department, pre-service teachers were asked to state their perceptions about the adequacy of the courses in terms of providing grammatical knowledge. It was also thought that some inferences could be made about the sufficiency of courses in terms of raising awareness of MLK through the responses to this question. While eight of the pre-service teachers thought that the courses they took at the department were quite satisfactory in terms of providing grammatical knowledge, six of them thought the opposite. For example, one of them (P16) stated that she had come from science and math department and as she had not learned much about grammar at high school, she had some deficiency in grammar knowledge. She had expected more from the department for providing grammatical knowledge; however, she thought that the courses did not meet her expectations. There were also another group of people (n=6) who did not make a specific comment on the adequacy of the courses and stated that their grammatical knowledge was not related to the courses they took at the department and they should study on it by themselves as they came to this department to learn how to teach English, not the English language itself. Based on these responses and pre-service teachers' unawareness of MLK, it can be inferred that the courses at the department may not contribute enough to the students in terms of raising their awareness and thus, increasing their MLK levels.

In addition, a few inferences about teachers' unawareness and insufficiency of MLK can also be made through their beliefs about the importance of grammatical knowledge and thus MLK. Some of these students stated that they

did not need terminology in order to be a good language teacher. For this reason, they thought that MLK was unimportant and admitted that they did not pay enough attention to the courses related to it. The reason why pre-service teachers think so can be the popularity of the Communicative Language Teaching method (CLT) in language teaching recently. As understood from their responses, they have a common belief that being able to speak fluently in English is much more important than the other competences to teach English effectively. Moreover, some of them stated that explicit grammar teaching was pointless in English language teaching, so they did not need to have such terminological knowledge (i.e. MLK). However, they cannot realize that even if they do not intend to teach grammar explicitly in their future classes, they, as English language teachers, must have sufficient level of MLK in order to teach language effectively in each language skill, including speaking. They can teach English effectively as long as they know its structure and terminology and how to use this knowledge and it was observed that they know the structure and terminology of language at moderate level. However, there is no conceptual clarification regarding MLK for them. Therefore, they have a lack of understanding on benefits that this knowledge will offer them in foreign language learning and teaching process. Probably, because of this reason, they do not care MLK enough and do not study on it as they stated in their responses.

Implications of the Study

The study results indicated that the pre-service teachers at Hacettepe University have MLK deficiencies and it also confirmed the results of earlier studies in different ESL/EFL contexts by Almarshedi (2017), Altinsoy and Boyraz (2017), Andrews (1999b), Lan (2011) and Wach (2014) which concluded that the participant pre-service teachers in their studies had MLK deficiencies, as well. In addition to this, it was also confirmed through the interviews in the present study that the participant pre-service teachers were unaware of metalinguistic knowledge as a concept and its possible contributions to their grammar teaching practices in their future classes.

It is thought that this insufficiency and unawareness may be troublesome for pre-service teachers in their teaching practices and in order to fill this deficiency, a few implications can be made based on the results of the study.

In this regard, the first step can be raising awareness for MLK through the courses in the department because when pre-service teachers realize the importance of MLK, they can be more eager to have this knowledge sufficiently in every sense and in addition to the courses that they take at school, they may also strive on their own to improve themselves. The courses that pre-service teachers take at the department can be considered as the first place where they can gain awareness of MLK. Therefore, it may be beneficial to focus on the importance and benefits of MLK in terms of ensuring effective English language teaching in the courses such as *Contextual Grammar* and *Linguistics* which provides theoretical linguistic knowledge to the students of the department. To do so, course contents can be revised and if there is deficiency in them with regards to offering sufficient linguistic knowledge and MLK, additions can be made related to this concept.

Besides, considering that the students who are eligible for education at the department may have different language proficiency levels and background knowledge in English grammar and linguistics, the content of *Contextual Grammar* and *Linguistics* courses should be examined and it should be ensured that these courses are also sufficient to offer comprehensive grammar and linguistic knowledge to the pre-service teachers.

Revision may also be required for the courses which provide teaching practice both during the courses and at schools for pre-service teachers (i.e. *Teaching Language Skills I-II* and *School Experience*). According to the results of the study, the pre-service teachers obtained low scores particularly in explaining grammatical rules, which assumed that they were not good enough at productive knowledge of rules. Through more teaching practices, they can improve themselves. Therefore, these courses can be revised in a way that pre-service teachers could have more opportunities to perform grammar teaching, which also provides them to experience the benefits of MLK and thus, help them to raise awareness of MLK more.

In order to ensure that pre-service teachers gain maximum benefit both from these courses and teacher training process in general, the necessity of gaining a habit of reflective thinking should not be overlooked. As also Lee (2007) states, reflective thinking provides pre-service teachers to be more aware of their strengths and weaknesses and thus, they can prepare themselves better as would-be teachers for their future classes. However, as it is not an easy process,

which 'requires critical thought, self-direction and problem solving coupled with personal knowledge and self-awareness' (Chant, Heafner & Bennett, 2004, p. 25; Elliot, 1991), teacher trainers at the department can guide pre-service teachers to achieve this habit by promoting them to use different techniques such as journal writings. It can be suggested that considering the need of implementing cognitive demands for the improvement of MLK, particular attention should be given to reflective thinking process. Also, the value of feedback for pre-service teachers provided by teacher trainers should not be forgotten during training process.

Lastly, such metalinguistic tests can be conducted at regular intervals by teacher trainers at the department in order to make pre-service teachers brush up on their grammar and linguistic knowledge and thus, to foster their MLK.

All of these implications are considered to be able to contribute to the improvement of English language teacher training program at Education Faculty for the sake of a more developed education system in the country.

Suggestions for Further Research

The present study was conducted by using a mixed-methods research design and it was intended to carry out a comprehensive study based on pre-service teachers' explicit grammatical knowledge as sub-part of MLK by collecting data through a test and interviews. In further studies, observation technique can also be included in the data collection process and pre-service teachers can be observed in their teaching practices at schools or during courses where they perform role plays or mini-lessons for teaching practice. Thus, it can be investigated to what extent and how they use their MLK in practice.

The test used in the present study is only for measuring pre-service teachers' explicit grammatical knowledge as sub-part of MLK. However, MLK also includes phonological and pragmatic features of language and studies can be conducted to measure pre-service teachers' MLK on these characteristics of language, as well.

The questions in the test were not separated as questions that measure productive knowledge or receptive knowledge and so, the test was assessed as a whole. These types of questions can be scored and assessed separately in further studies.

The present study was conducted with 120 pre-service teachers studying ELT at Hacettepe University. The further studies can be conducted with pre-service teachers from different universities in order to make comparisons and be able to generalize the results. Also, a research can be conducted to find out whether there are explicit courses on MLK in ELT departments across the country and if there are, a comparative study can be done to compare the results.

Lastly, besides pre-service teachers, in-service English language teachers and instructors in Turkish EFL context can be also included in further studies which aim to measure MLK level so as to see how experience affects their MLK.

Conclusion

This study was mainly carried out with the purpose of investigating pre-service English language teachers' levels of Metalinguistic Knowledge (MLK) and differences of MLK improvement by gender and grade level in ELT teacher education program at Hacettepe University. It also aimed to explore pre-service teachers' awareness of MLK and perceptions on their own MLK levels.

The results of this study indicated that most of the pre-service teachers had moderate level of MLK (70.8%). A significant difference was not found between male and female pre-service teachers' levels of MLK. However, it was observed that as the grade levels increased, pre-service teachers' MLK levels significantly increased, as well. It was also seen that this difference among grade levels was mostly influenced by 3rd grade.

The analysis of qualitative data revealed that all of the participant pre-service teachers lack awareness of MLK as a concept and they did not know what contributions it would provide to them for their future English language learning and teaching practices. After pre-service teachers had been introduced with the concept, they stated that they perceived themselves insufficient in terms of MLK. Surprisingly, they did not think that they would have difficulty because of insufficient MLK as long as they taught at elementary or intermediate level classes. Yet, they also sincerely remarked that they might have difficulty at advanced level classes and so, they needed to improve their MLK. Therefore, it was also concluded that pre-service teachers were not with full confidence in their MLK.

References

- Abell, S. K. (2008). Twenty years later: Does pedagogical content knowledge remain a useful idea?. *International Journal of Science Education*, 30(10), 1405-1416.
- Alderson, J. C., Clapham, C., & Steel, D. (1997). Metalinguistic knowledge, language aptitude and language proficiency. *Language Teaching Research*, 1(2), 93-121.
- Alderson, J. C., & Horák, T. (2010). Final Report on a project funded by The Subject Centre for Languages, Linguistics and Area Studies in Higher.
- Alderson, J. C., & Hudson, R. (2013). The metalinguistic knowledge of undergraduate students of English language or linguistics. *Language Awareness*, 22(4), 320-337.
- Alipour, S. (2014). Metalinguistic and linguistic knowledge in foreign language learners. *Theory and Practice in Language Studies*, 4(12), 2640.
- Almarshedi, R. M. (2017). *Metalinguistic knowledge of female language teachers and student teachers in an English Language department in Saudi Arabia; level, nature and self-perceptions* (Doctoral dissertation, School of Education).
- Andrews, S. (1994) The grammatical knowledge/awareness of native-speaker EFL teachers: What the trainers say. In Bygate, M., Tonkyn, A. and Williams, E., (ed.) *Grammar and the language teacher* (pp. 69-89). New Jersey: Prentice Hall.
- Andrews, S. (1997). Metalinguistic awareness and teacher explanation. *Language Awareness*, 6(2-3), 147-161.
- Andrews, S. (1999a). Why do L2 teachers need to 'know about language'? Teacher metalinguistic awareness and input for learning. *Language and Education*, 13(3), 161-177.
- Andrews, S. (1999b). 'All these like little name things': A comparative study of language teachers' explicit knowledge of grammar and grammatical terminology. *Language Awareness*, 8(3-4), 143-159.
- Andrews, S. J. (2000). *The metalinguistic awareness of Hong Kong secondary school teachers of English* (Doctoral dissertation, University of Southampton).

- Andrews, S. (2001). The language awareness of the L2 teacher: Its impact upon pedagogical practice. *Language Awareness*, 10(2-3), 75-90.
- Andrews, S. (2003). Teacher language awareness and the professional knowledge base of the L2 teacher. *Language Awareness*, 12(2), 81-95.
- Andrews, S. (2006). The evolution of teachers' language awareness. *Language Awareness*, 15(1), 1-19.
- Andrews, S. (2007). Researching and developing teacher language awareness. In *International handbook of English language teaching* (pp. 945-959). Springer, Boston, MA.
- Andrews, S., & McNeill, A. (2005). Knowledge about language and the 'good language teacher'. In *Applied linguistics and language teacher education* (pp. 159-178). Springer, Boston, MA.
- Angelova, M. (2005). Using Bulgarian mini-lessons in an SLA course to improve the KAL of American ESL teachers. In *Applied linguistics and language teacher education* (pp. 27-41). Springer, Boston, MA.
- Altinsoy, E., & Boyraz, S. (2017). The relationship between metalinguistic knowledge and speaking anxiety of ELT students. *International Journal of Language Academy*, 5(5), 151-158.
- Bartels, N. (ed.) (2005). *Applied linguistics and language teacher education*. New York: Springer.
- Berry, B., Hoke, M., & Hirsch, E. (2004). The search for highly qualified teachers. *Phi Delta Kappan*, 85(9), 684-689.
- Berry, R. (2009). EFL majors' knowledge of metalinguistic terminology: A comparative study. *Language Awareness*, 18(2), 113-128.
- Bialystok, E. (1988). Levels of bilingualism and levels of linguistic awareness. *Developmental Psychology*, 24(4), 560.
- Bigelow, M. H., & Ranney, S. E. (2005). Pre-service ESL teachers' knowledge about language and its transfer to lesson planning. In *Applied linguistics and language teacher education* (pp. 179-200). Boston, MA: Springer.
- Bloor, T. (1986). What do language students know about grammar? *British Journal of Language Teaching*, 24(3), 157-162.

- Borg, S. (2003). Teacher cognition in language teaching: A review of research on what language teachers think, know, believe, and do. *Language Teaching*, 36(02), 81-109.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.
- Brinkmann, S. (2013). *Qualitative interviewing: Understanding qualitative research*. Oxford: Oxford University Press.
- Burgess, T., Turvey, A., & Quarshie, R. (2000). Teaching Grammar: Working with student teachers. *Changing English*, 7(1), 7-21.
- Cajkler, W., & Hislam, J. (2002). Trainee teachers' grammatical knowledge: The tension between public expectation and individual competence. *Language Awareness*, 11(3), 161-177.
- Cameron, R. (2009). A sequential mixed model research design: Design, analytical and display issues. *International Journal of Multiple Research Approaches*, 3(2), 140-152.
- Canale, M., & Swain, M. (1980). Theoretical bases of communicative approaches to second language teaching and testing. *Applied Linguistics*, 1(1), 1-47.
- Caracelli, V. J., & Greene, J. C. (1997). Crafting mixed-method evaluation designs. *New Directions for Evaluation*, 1997(74), 19-32.
- Carter, R. (2003). Language Awareness. *ELT Journal*, 57(1), 64-65.
- Chant, R. H., Heafner, T. L., & Bennett, K. R. (2004). Connecting personal theorizing and action research in preservice teacher development. *Teacher Education Quarterly*, 31(3), 25-42.
- Corder, S.P. (1973). *Introducing Applied Linguistics*. London: Penguin.
- Cots, J. M., & Arnó, E. (2005). Integrating language teachers' discipline knowledge in a language course. In *Applied linguistics and language teacher education* (pp. 59-78). Springer, Boston, MA.
- Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory into Practice*, 39(3), 124-130.
- Creswell, J. W., & Plano Clark, V. L. (2011). *Designing and conducting mixed methods research* (2nd ed.). Thousand Oaks, CA: Sage.

- Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative (4th ed.)*. Upper Saddle River, NJ: Prentice Hall.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches (4th ed.)*. Thousand Oaks, CA: Sage.
- Dawson, N. V., & Weiss, R. (2012). Dichotomizing continuous variables in statistical analysis: A practice to avoid. *Medical Decision Making*, 32, 225–226. <http://dx.doi.org/10.1177/0272989X12437605>
- Danermark, B., Ekstrom, M., & Jakobsen, L. (2005). *Explaining society: An introduction to critical realism in the social sciences*. Routledge.
- DeKeyser, R. (2008). 11 Implicit and Explicit Learning. *The handbook of second language acquisition*, 27, 313.
- Dörnyei, Z. (2007). *Research Methods in Applied Linguistics*. Oxford: Oxford University Press.
- Duff, T. (ed.) (1988). *Explorations in teacher training: Problems and issues*. Harlow: Longman.
- Dulay, H. C., & Burt, M. K. (1973). Should we teach children syntax?. *Language Learning*, 23(2), 245-258.
- Elliot, J. (1991). *Action research for educational change*. Buckingham, UK: Open University Press.
- Ellis, R. (1994). *The study of second language acquisition*. Oxford University.
- Ellis, R. (2004) The definition and measurement of L2 explicit knowledge. *Language Learning*, 54(2), 227-275.
- Ellis, N. C. (2005). At the interface: Dynamic interactions of explicit and implicit language knowledge. *Studies in Second Language Acquisition*, 27(2), 305-352.
- Ellis, R. (2006). Current issues in the teaching of grammar: An SLA perspective. *TESOL Quarterly*, 40(1), 83-107.
- Ellis, R. (2009). Implicit and explicit learning, knowledge and instruction. In R. Ellis, S. Loewen, C. Elder, R. Erlam, J. Philp, & H. Reinders (Eds.), *Implicit and explicit knowledge in second language learning, testing and teaching* (pp. 3-25). Bristol: Multilingual Matters.

- Ellis, N. C. (2011). Implicit and explicit SLA and their interface. In C. Sanz & R. Leow (Eds.), *Implicit and explicit language learning*, (pp.35-47). Washington, DC: Georgetown University Press.
- Ellis, R. (2008). *The study of second language acquisition* (2nd ed.). Oxford: Oxford University Press.
- Engin, A. (2012). Variation of scores in language achievement tests according to gender, item format and skill areas. *Unpublished master's thesis*. Bilkent University, Ankara.
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1-4.
- Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive–developmental inquiry. *American Psychologist*, 34(10), 906.
- Fotos, S.& Hinkel, E. (eds) (2002). *New Perspectives on Grammar Teaching in Second Language Classrooms*. Mahwah, NJ: Erlbaum.
- Freeman, D. (2002). The hidden side of the work: Teacher knowledge and learning to teach. A perspective from North American educational research on teacher education in English language teaching. *Language Teaching*, 35(1), 1-13.
- Gall, M.D., Gall, J.P., & Borg, W.R. (2007). *Educational Research: An Introduction* (8th ed.). Boston: Pearson Education, Inc.
- Glaser, B. G., & Strauss, A. L. (1967). The constant comparative method of qualitative analysis. *The Discovery of Grounded Theory: Strategies for Qualitative Research*, 101, 158.
- Główka, D. (2014). The impact of gender on attainment in learning English as a foreign language. *Studies in Second Language Learning and Teaching*, 4(4), 617-635.
- Gutiérrez, X. (2013). Metalinguistic knowledge, metalingual knowledge, and proficiency in L2 Spanish. *Language Awareness*, 22(2), 176-191.
- Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods*, 18(1), 59-82.

- Hawkins, E. (1992). Awareness of language/knowledge about language in the curriculum in England and Wales: An historical note on twenty years of curricular debate. *Language Awareness*, 1(1), 5-17.
- Hislam, J., & Cajkler, W. (2005). Teacher trainees' explicit knowledge of grammar and primary curriculum requirements in England. In *Applied linguistics and language teacher education* (pp. 295-312). Springer, Boston, MA.
- Hogan, M. J., Dwyer, C. P., Harney, O. M., Noone, C., & Conway, R. J. (2015). Metacognitive skill development and applied systems science: A framework of metacognitive skills, self-regulatory functions and real-world applications. In *Metacognition: Fundamentals, applications, and trends* (pp.75-106). Cham: Springer.
- Hopkins, W. G. (2000). Quantitative research design. *Sportscience* 4(1). Retrieved from <http://sportsci.org/jour/0001/wghdesign.html>.
- Ivankova, N. V., Creswell, J. W., & Stick, S. L. (2006). Using mixed-methods sequential explanatory design: From theory to practice. *Field Methods*, 18(1), 3-20.
- Jackson, R. L., Drummond, D. K., & Camara, S. (2007). What is qualitative research?. *Qualitative Research Reports in Communication*, 8(1), 21-28.
- Jessner, U. (2008). Teaching third languages: Findings, trends and challenges. *Language Teaching*, 41(1), 15-56.
- Kamler, B. (1995). The grammar wars or?: What do teachers need to know about grammar. *English in Australia*, (114), 3.
- Keselman, H. J., & Rogan, J. C. (1978). A comparison of the modified-Tukey and Scheffe methods of multiple comparisons for pairwise contrasts. *Journal of the American Statistical Association*, 73(361), 47-52.
- Kim, H. Y. (2013). Statistical notes for clinical researchers: assessing normal distribution (2) using skewness and kurtosis. *Restorative Dentistry & Endodontics*, 38(1), 52-54.
- King, N. (2004). Using templates in the thematic analysis of texts. In C. Cassell & G. Symon (Eds.), *Essential guide to qualitative methods in organizational research* (pp. 256-270). London: Sage.
- Krashen, S. (1982). *Principles and practice in second language acquisition*. Oxford: Pergamon.

- Kuder, G. F., & Richardson, M. W. (1937). The theory of the estimation of test reliability. *Psychometrika*, 2(3), 151-160.
- Kuile, H., Veldhuis, M., Van Veen, S. C., & Wicherts, J. M. (2011). Bilingual education, metalinguistic awareness, and the understanding of an unknown language. *Bilingualism: Language and Cognition*, 14(2), 233-242.
- Kumaravadivelu, B. (2006). TESOL methods: Changing tracks, challenging trends. *Tesol Quarterly*, 40(1), 59-81.
- Lan, T. W. (2011). English metalanguage awareness among primary school teachers in Hong Kong. *GEMA Online® Journal of Language Studies*, 11(1).
- Lee, I. (2007). Preparing pre-service English teachers for reflective practice. *ELT Journal*, 61(4), 321-329.
- Leedy, P., & Ormrod, J. (2001). *Practical research: Planning and design* (7th ed.). Upper Saddle River, NJ: Merrill Prentice Hall.
- Lester, S. (1999). An introduction to phenomenological research [online]. Taunton: Stan Lester Developments.
- Little, D. (1994). Words and their properties: Arguments for a lexical approach to pedagogical grammar. *Perspectives on Pedagogical Grammar*, 99-122.
- Liu, S. (2013). Pedagogical content knowledge: A case study of ESL teacher educator. *English Language Teaching*, 6(7), 128.
- Maccoby, E. E., & Maccoby, N. (1954). The interview: A tool of social science. *Handbook of Social Psychology*, 1(1), 449-487.
- Mackey, A., & Gass, S. M. (2005). *Second language research: Methodology and design*. Mahwah, NJ: Lawrence Erlbaum Associates.
- McNamara, D. (1991). Subject knowledge and its application: Problems and possibilities for teacher educators. *Journal of Education for Teaching*, 17(2), 113-128.
- Miles, M. B., Huberman, A. M., & Saldana, J. (1984). *Qualitative data analysis: A sourcebook*. Beverly Hills, CA: Sage Publications.

- Morgan, G. A., Gliner, J. A., Harmon, R. J., & Harmon, R. J. (2001). Measurement validity. *Journal of the American Academy of Child & Adolescent Psychiatry*, 40(6), 729-731.
- Morse, J. M. (1991). Approaches to qualitative-quantitative methodological triangulation. *Nursing Research*, 40(2), 120–123.
- Murphy, B. (2010). Foreign language learning in Irish second level schools: gender very much on the agenda!. *Irish Educational Studies*, 29(1), 81-95.
- Myhill, D., Jones, S., & Watson, A. (2013). Grammar matters: How teachers' grammatical knowledge impacts on the teaching of writing. *Teaching and Teacher Education*, 36, 77-91.
- Norris, J. M., & Ortega, L. (2000). Effectiveness of L2 instruction: A research synthesis and quantitative meta-analysis. *Language Learning*, 50(3), 417-528.
- O'Grady, W. D., & Archibald, J.(2016). *Contemporary linguistic analysis: An introduction*. (8th ed.). Toronto: Pearson Canada Inc. Retrieved from <https://tr.scribd.com/document/338649248/>
- Öz, H. (2015). Assessing Pre-Service English as a Foreign Language Teachers' Technological Pedagogical Content Knowledge. *International Education Studies*, 8(5), 119-130.
- Popko, J. (2005). How MA-TESOL students use knowledge about language in teaching ESL classes. In N. Bartels (Ed.), *Applied linguistics and language teacher education* (pp. 387- 404). New York, NY: Springer.
- Renou, J. (2001). An examination of the relationship between metalinguistic awareness and second-language proficiency of adult learners of French. *Language Awareness*, 10(4), 248-267.
- Riazi, A. M., & Candlin, C. N. (2014). Mixed-methods research in language teaching and learning: Opportunities, issues and challenges. *Language Teaching*, 47(2), 135-173.
- Rivas, M. (2017). *Gender and second language acquisition*. Retrieved from <https://www.academia.edu>

- Robinson, O. C. (2014). Sampling in interview-based qualitative research: A theoretical and practical guide. *Qualitative Research in Psychology, 11*(1), 25-41.
- Roehr, K. (2008). Metalinguistic knowledge and language ability in university-level L2 learners. *Applied Linguistics, 29*(2), 173-199.
- Roehr, K., & Gánem-Gutiérrez, G. A. (2009). The status of metalinguistic knowledge in instructed adult L2 learning. *Language Awareness, 18*(2), 165-181.
- Sangster, P., Anderson, C., & O'Hara, P. (2013). Perceived and actual levels of knowledge about language amongst primary and secondary student teachers: Do they know what they think they know?. *Language Awareness, 22*(4), 293-319.
- Sharwood Smith, M. (2004). In two minds about grammar: On the interaction of linguistic and metalinguistic knowledge in performance. *Transactions of the Philological Society, 102*(2), 255-280.
- Shuib, M. (2009). Grammatical awareness among primary school English language teachers. *GEMA Online® Journal of Language Studies, 9*(1).
- Shulman, L. S. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher, 15*(2), 4-14.
- Shulman, L. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard educational review, 57*(1), 1-23.
- Shulman, L. (1999) Foreword. In L. Darling-Hammond & G. Sykes (Eds), *Teaching as the Learning Profession: Handbook of policy and practice* (pp. xi–xiv). San Francisco, CA: Jossey-Bass.
- Silverman, D. (2000). Analyzing talk and text. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (2nd ed.), Thousand Oaks, CA: Sage, 821–834.
- Strauss, A., & J. Corbin. (1990). *Basics of qualitative research. Grounded theory procedures and techniques*. Thousand Oaks, CA.: Sage.
- Tashakkori, A., & Teddlie, C. (Eds.) (2003). *Handbook of mixed methods in social & behavioral research*. Thousand Oaks, CA: Sage.

- Taylor, J. R. (1993). Some pedagogical implications of cognitive linguistics. In R.A. Geiger & B. Rudzka, *Conceptualizations and mental processing in language* 3, (pp. 201-226). Berlin: Mouton de Gruyter.
- The Association for Language Awareness. (2019). *About*. Retrieved from http://www.languageawareness.org/?page_id=48.
- Thomas, A.L. (1987). Language teacher competence and language teacher education. In R. Bowers (Ed.), *Language teacher education: An integrated programme for EFL teacher training* (pp. 33-42). London: Reading Modern English Publications in association with the British Council.
- Thornbury, S. (1997). *About language: Tasks for teachers of English*. Cambridge, England: Cambridge University Press.
- Tokunaga, M. (2014). Exploring metalinguistic knowledge of low to intermediate proficiency EFL students in Japan. *SAGE Open*, 4(4), 1-10.
- Venuti, I. (2010). Metalinguistic knowledge and language proficiency. *Psychological Aspects of Language Education*. Retrieved from <http://www.academia.edu/1343130/>
- Wach, A. (2014). Language awareness in EFL teachers, teacher trainees and advanced learners. In Łyda, A. & Szcześniak, K. (eds.). *Awareness in action: The role of consciousness in language acquisition* (pp.50-66). London and New York: Springer.
- Wilkins, D. A. (1972). *Linguistics and language teaching*. London: Edward Arnold
- Williamson, J., & Hardman, F. (1995). Time for refilling the bath?: A study of primary student-teachers' grammatical knowledge. *Language and Education*, 9(2), 117-134.
- Williams, C. (2007). Research methods. *Journal of Business & Economic Research*, 5(3), 65-72.
- Yan, H. (2009). Empirical study on relations between gender differences and English vocabulary and the overall proficiency level. *Asian Social Science*, 5(10), 109-114.
- Zhang, J. (2009). Necessity of grammar teaching. *International Education Studies*, 2(2), 184.

Ziłek, A. A., & Roehr, K. (2011). Metalinguistic knowledge and cognitive style in Polish classroom learners of English. *System*, 39(4), 417-426.

APPENDIX-A: The Metalinguistic Knowledge Test

The Test of Metalinguistic Knowledge

Dear Participant,

The following survey is administered in order to find out your metalinguistic knowledge level. Please make sure that the answers you give in these questionnaires will remain confidential. Your answers will have a valuable contribution to the study. Thank you very much for your participation.

Betül Mutaf

Hacettepe University- ELT (M.A. Candidate)

Uşak University (Instructor)

Your gender: Female Male

Your grade level: First year Second year Third year Fourth year

ENGLISH GRAMMAR

ABOUT YOU

Which of the following courses did you take or are you taking within the Department of English Language Teaching? Tick those that apply.

ELT 171 Contextual Grammar I ELT 273 Linguistics I ELT 375 Teaching of Language Skills I

ELT 172 Contextual Grammar II ELT 274 Linguistics II ELT 376 Teaching of Language Skills II

ELT 475 School Experience

SECTION ONE: GRAMMATICAL CATEGORIES AND FUNCTIONS

You are advised to take no more than **5 minutes** on this section.

1. *From the sentence below select one example of the grammatical item requested and write it in the space provided. NOTE: You may select the same word (s) more than once if appropriate:*

Materials are delivered to the factory by a supplier, who usually has no technical knowledge, but who happens to have the right contacts

1. verb
2. noun
3. countable noun
4. passive verb
5. adjective
6. adverb
7. definite article
8. indefinite article.....
9. preposition
10. relative pronoun
11. auxiliary verb
12. past participle
13. conjunction
14. finite verb
15. infinitive verb

2. *In the following sentences, underline the item requested in brackets:*

1. Poor little Joe stood out in the snow (SUBJECT)
2. Joe had nowhere to shelter (PREDICATE)
3. The policeman chased Joe down the street (DIRECT OBJECT)
4. The woman gave him some money (INDIRECT OBJECT)

SECTION TWO: ENGLISH ERROR IDENTIFICATION

You are advised to take no more than **10 minutes** on this section.

This section has 15 English sentences, each of which has a mistake.

For each sentence:

1. *Rewrite the faulty part of the sentence correctly. (There will only be one part that is wrong.) Do **NOT** rewrite the whole sentence.*
2. *Underneath each sentence explain the grammatical rule which you think has been broken.*

Example:

I often goes to the cinema.

Correct version: _____go_____

Rule: The verb must agree with the subject _____

Do not write: "Change 'goes' to 'go'")

1. I walk to work very quick.

Correct version:

Rule:

2. When her said that, Jack hit her.

Correct version:

Rule:

3. Every day I am making good resolutions.

Correct version:

Rule:

4. She's the taller of the four sisters.

Correct version:

Rule:

5. I live in a flat at a top of an old house.

Correct version:

Rule:

6. Do you know anyone having lost a cat?

Correct version:

Rule:

7. The children put on their coat.

Correct version:

Rule:

8. He tried and ate something but he couldn't.

Correct version:

Rule:

9. I don't like people which are always apologizing.

Correct version:

Rule:

10. I opened the door, but I couldn't see nobody.

Correct version:

Rule:

11. When I was a small baby I have colic.

Correct version:

Rule:

12. I'll tell you as soon as I'll know.

Correct version:

Rule:

13. I heard him went downstairs.

Correct version:

Rule:

14. Give the spanner to I.

Correct version:

Rule:

15. She has phoned a few minutes ago.

Correct version:

Rule:

SECTION THREE: WORDS IN SENTENCES

You are advised to take no more than **5 minutes** on this section.

This is a test of your ability to understand the function of words and phrases in sentences.

Look at the following sample item:

LONDON is the capital of England.

He liked to go fishing in Maine.

A B C D E

In the first sentence, which we will call the *key* sentence, LONDON is printed in capital letters. Which word in the second sentence does the same thing in *that* sentence as LONDON does in the *key* sentence? The right answer is the word "he", because the key sentence is about "London", and the second sentence is about "he". Therefore the letter A has been written in the left margin as the correct answer.

Here is another sample item:

Mary is cutting the APPLE.

My brother John is beating his dog with a big stick.

A B C D E

In the key sentence, APPLE is the name of the thing which is being cut; in the second sentence, dog is the thing which is being beaten. Therefore, the letter D has been written in the left margin of this sheet.

Look at the next example, and write the letter of the correct answer in the left margin of this sheet.

MONEY is his only object.

Not so many years ago, most farming was done by hand.

A B C D E

The right answer is farming; it performs the same function in the second sentence as MONEY does in the key sentence. Therefore, you should have written the letter D in the left margin.

When you are ready, turn over the page and begin the test. Remember, always look over all the choices to find the one which functions most nearly like the word or phrase in the key sentence.

Try to answer every item; if you are not certain of the answer, give your best guess.

1. Jill fell down AND Jack came tumbling after.

Now, you may wait out there or you may come back on Friday if you wish.

A B C D E

2. I expect him to do good WORK.

On his trip across the United States and up to Alaska, Fred expected to see many

A B C D
interesting things.
E

3. John sold DICK his bicycle.

If their work is up to standard, I will guarantee them a bonus at the end of the week.

A B C D E

4. The school CLOSED for the summer.

Despite the efforts we had made to reinforce the material, it tore easily under the

A B C D
slightest strain.
E

5. HE was here.

Because of the great demand for this product, the committee should ask for it now.

A B C D E

6. Bill has gone TO make a telephone call.

Two people are needed to carry this box to the car because it is too heavy for one.

A B C D E

7. At midnight, the SCREAMING of sirens awakened me.

Painting in oils is a comforting hobby for busy executives who need relaxation.

A B C D E

8. The door OPENED quickly.

Because she had tied the package securely, it arrived without any damage from its
careless handling.
A B C D
E

9. The lake was dotted with SPEEDING boats.

Sometimes the very best method for good learning is constant practice.
A B C D E

10. The most influential WRITER of his day, he had but a modest pride of authorship.

Gockel, a Swiss physicist, sent an electroscope up to a height of 13,000 feet in a
balloon.
A B C D
E

11. They named him BILL.

Because of his military success during the Civil War, the people made Grant
president of the United States.
A B C D
E

12. The company owns every substantial PIECE of property in the town.

Before the dawn of history, men were raising corn very much like what we grow today.
A B C D E

13. It is not TO be passed over lightly.

She talked to me about how I should try to make the horse work instead of letting her
graze at will.
A B C D
E

14. SEVERAL were absent from the meeting.

In spite of the many proposals which were made, only one could be adopted.
A B C D E

15. I told him to come BUT he refused.

If tests are made, even when there seems to be no change this system will show an
advantage, and our customers will be convinced.
A B C D
E

16. My finger became SWOLLEN from the infection.

The child grew strong from the healing sunshine.

A B

The high wall was nearly hidden from view by the foliage.

C D E

17. My FRIEND went home.

Behind the house but near the forest stood a barn.

A B C D E

18. That is the OLDEST house.

It is farther from your hotel than the one we saw before, but it is the best example of

A B

earlier dwellings constructed by our former inhabitants.

C D E

19. FEW come back.

In the middle of the lake will be found a small island crowned with a single tree.

A B C D E

20. He saw several fish SWIMMING slowly by.

As he was walking down the lane, he found himself wondering who had been there

A B C D

before he arrived.

E

21. THIS is my first trip.

Even though these letters arrived before those, that has not been answered yet.

A B C D E

22. The corn grew TALL during the summer.

She raised yellow tulips in her small garden.

A B C

The storm proved worse as the wind became stronger.

D E

23. TO TELL THE TRUTH, it is hard to say.

To sum up, this product is as efficient as any.

A B

To be or not to be, that is the question.

C D

To start the engine, push this button.

E

24. He drove FROM Boston to New York.

To be safe, he decided to buy spare parts for any emergency.

A B C D E

25. He nailed the board TIGHT against the house.

He always did the job well.

A B C

He poured the pail full.

D E

26. Do AS I say.

Although the weather report predicted clear skies for today, it rained all day.

A B C D E

27. Is THAT your hat?

This looks better on you even though those suits are better bargains than the ones

A B C D

on this rack.

E

28. The weekly meeting, usually held on Friday night, is a fixed ACTIVITY of the Scout program.

Washington was the first president of the United States; he refused the crown that

A B C D

some of his admirers wanted him to have.

E

29. Put it WHERE it will do the most good.

At the signal, proceed to mark it as you were instructed in your last lesson.

A B C D E

30. NONE was more curious to solve the riddle than I.

The government's first task was to check the prescriptions written by the doctors.

A B C D E

31. Which one do YOU think it is?

That one may belong to me.

A B

Please pay me before going on your trip.

C D E

32. A CALCULATING machine is useful to mathematicians.

Skiing is a fine sport during the winter months.

A B C

Seeing is believing.

D E

33. As he sat down to rest, a FEELING of weariness came over him.

Swimming is relaxing exercise for growing boys in training for wrestling.

A B C D E

34. I will buy a car WHEN I get the money.

After you left last night, most of the students remained until the end.

A B C D E

35. She played the piano EXTREMELY well.

Promptly on the dot of five, he came up the stairs, quite flushed with excitement and

A B C

breathing very heavily.

D E

36. A NUMBER of people applied for the position.

I find many candidates who cannot offer more than two years' experience.

A B C D E

37. His wife bought HERSELF a new hat.

Why won't you tell me more about yourself than you did yesterday?

A B C D E

38. WHAT is this?

I do not know what book you want.

A

To whom do these belong?

B

Which fellow is your brother?

C

Those are mine.

D

E

39. Let's make this campaign a SUCCESS.

Some people believe that the world is wholly a figment of the imagination;

A

B

philosophers call this theory a variety of solipsism.

C

D

E

40. Which colour do YOU like best?

This one suits me better than the other.

A

B

C

It makes no difference to me.

D

E

41. We plan to take IT today.

On the chance that he would see us, we took steps to put up a beacon.

A

B

C

D

E

42. They observed several artists PAINTING landscapes there.

While attempting to catch the ball, he found himself so blinded by the sun that he

A

B

C

failed to notice the overhanging limb.

D

E

43. Some people enjoy EATING clams on the half-shell.

Hacking his way through the teeming jungle, he found abundant evidence of the

A

B

C

D

vanished civilization.

E

44. There is no POINT in going ahead.

When the light changed, he stopped the car.

A

B

A river flows down to the sea.

C

D

E

45. The child hurt HIMSELF.

Although I myself would do that by myself, Mary gained herself the help of some of

A

B

C

D

her classmates.

E

CHECK OVER YOUR WORK IF YOU HAVE TIME

APPENDIX-B: Permission for the Use of the Test

Metalinguistic Knowledge Test Gelen Kutusu x



Betül Mutaf <betul.mutaf@usak.edu.tr>

2 Ağu 2017 Çar 12:21



Alici: dick ▾

Dear Hudson,

I am a Master student studying at Hacettepe University in Turkey.

In the context of my master thesis, I would like to use the "Metalinguistic Knowledge Test" which you used in your article named 'The Metalinguistic Knowledge of Undergraduate students of English language or linguistics.'

So, I kindly request your allowance in this regard.

Sincerely yours,

Ins. Betül MUTAF



Richard Hudson <r.hudson@ucl.ac.uk>

2 Ağu 2017 16:48



Alici: ben ▾

İngilizce ▾ > Türkçe ▾ [iletiyi çevir](#)

[İngilizce için kapat](#) x

Dear Betül,

Thanks for your message. Yes, of course you're welcome to use the test, but I'd really like to see your results!

Best wishes, Dick



APPENDIX-C: Interview Questions in English

1. What do you think metalinguistic knowledge (MLK) means in ELT context?
2. How would you describe your MLK in terms of your grammar knowledge?
3. Do you think that you will get sufficient grammar knowledge until you graduate from this department? If yes/no, why?
4. How would you evaluate the sufficiency of your MLK for teaching English language grammar effectively?
5. Is it important for English teachers to have metalinguistic knowledge and how does this knowledge affect their teaching ability?
6. What could be the possible difficulties that non-native English language teachers have with teaching grammar?

APPENDIX-D: Interview Questions in Turkish

1. İngiliz dili eğitimi bağlamında, üst dil bilgisinin ne anlama geldiği hakkındaki düşünceniz nedir?
2. Grammar (dil bilgisi) açısından İngilizce üst dil bilginizi nasıl tanımlarsınız?
3. Bu bölümden mezun olana kadar, yeterli seviyede İngilizce dil bilgisine hakim olacağınızı düşünüyor musunuz? Eğer yanıtınız Evet ya da Hayır ise, neden?
4. İngilizce dil bilgisini etkili bir şekilde öğretmek için, üst dil bilgisi yeterliliğinizi nasıl değerlendirirsiniz?
5. İngilizce öğretmenleri için üst dil bilgisine sahip olmak önemli midir, ve bu bilgi öğretmenlerin öğretme yeteneğini nasıl etkiler?
6. Ana dili İngilizce olmayan bir İngilizce öğretmeni olacağınız için gelecekteki sınıflarınızda İngilizce dil bilgisi öğretiminde karşılaşılabileceğiniz muhtemel zorluklar neler olabilir?

APPENDIX-E: The Test of Metalinguistic Knowledge Consent Form

INTRODUCTION

You are invited to consider participating in this research study. Please take as much time as you need to make your decision. Feel free to discuss your decision with whomever you want, but remember that the decision to participate, or not to participate, is yours. If you decide that you want to participate, please sign in your name in the space provided at the bottom of this page.

For this study, permission was obtained from Hacettepe University Ethics Commission.

PURPOSE

The purpose of this study is to measure the metalinguistic knowledge of pre-service English language teachers in a Turkish context. You are being asked to participate in this study by completing one test consisting of 3 parts about grammatical constructions and aiming to measure your metalinguistic knowledge.

RISKS & BENEFITS

When you participate in this research study, there are no known risks greater than those encountered in everyday life. While the study may not provide any direct benefits to you, your participation will contribute to the professional knowledge base on English Language Teaching.

COMPENSATION FOR PARTICIPATION

There will be no monetary compensation to you. Nor will there be any costs to you for participating in the study.

CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. However, it is impossible to guarantee absolute confidentiality. In order to keep information about you safe, computerized data will be kept in a password-protected file on the personal computer which only the researcher can access. Your name or other identifiable information will not be included in the final product that reports the research results. Please note that, even if your name is not used in publication, the researcher will still be able to connect you to the information gathered about you in this study.

PARTICIPATION & WITHDRAWAL

Participation is completely voluntary. You can choose whether or not to be in this study. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind or loss of benefits to which you are otherwise entitled. You may also refuse to answer any questions you do not want to answer. There is no penalty if you withdraw from the study and you will not lose any benefits to which you are otherwise entitled.

SUMMARY OF RESULTS: A summary of the results of this research will be supplied to you, at no cost, upon your request.

VOLUNTARY CONSENT (SIGNATURE): _____

By completing and submitting this questionnaire to the researcher, you are voluntarily agreeing to participate. If you have any questions about the study, please contact the researcher and/or the thesis supervisor via email or phone.

Betül Mutaf, MA Candidate Hacettepe University ELT Department Beytepe, Çankaya 06800, Ankara Phone : (543) 271-9777 E-mail: betullmutaf@gmail.com	Hüseyin Öz ¹ , Thesis Supervisor Associate Professor Hacettepe University ELT Department Beytepe, Çankaya 06800, Ankara Phone : 312-297-8575 E-mail : hoz@hacettepe.edu.tr
--	---

¹ The former supervisor was Assoc. Prof. Dr. Hüseyin Öz. However, as he passed away before the thesis defense, the present thesis was completed with Assist. Prof. Dr. Ufuk Balaman.

APPENDIX-F: Research Interview Consent Form

INTRODUCTION

You are invited to consider participating in this research study. Please take as much time as you need to make your decision. Feel free to discuss your decision with whomever you want, but remember that the decision to participate, or not to participate, is yours. If you decide that you want to participate, please sign in your name in the space provided at the bottom of this page.

For this study, permission was obtained from Hacettepe University Ethics Commission.

PURPOSE

The purpose of this study is to measure the metalinguistic knowledge of pre-service English language teachers and determine their perceptions and thoughts about topic in a Turkish context. This consent form is for the interview method which is the second phase of the study. During interview process, participants will be asked 6 open-ended questions and requested to answer them. Interviews will be carried out one by one participant in classroom setting. Participants' replies to the questions will be recorded by a voice recording device.

RISKS & BENEFITS

When you participate in this research study, there are no known risks greater than those encountered in everyday life. While the study may not provide any direct benefits to you, your participation will contribute to the professional knowledge base on English Language Teaching.

COMPENSATION FOR PARTICIPATION

There will be no monetary compensation to you. Nor will there be any costs to you for participating in the study.

CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. However, it is impossible to guarantee absolute confidentiality. In order to keep information about you safe, computerized data will be kept in a password-protected file on the personal computer which only the researcher can access. Your name or other identifiable information will not be included in the final product that reports the research results. Please note that, even if your name is not used in publication, the researcher will still be able to connect you to the information gathered about you in this study.

PARTICIPATION & WITHDRAWAL

Participation is completely voluntary. You can choose whether or not to be in this study. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind or loss of benefits to which you are otherwise entitled. You may also refuse to answer any questions you do not want to answer. There is no penalty if you withdraw from the study and you will not lose any benefits to which you are otherwise entitled.

SUMMARY OF RESULTS: A summary of the results of this research will be supplied to you, at no cost, upon your request.

VOLUNTARY CONSENT (SIGNATURE): _____

By completing and submitting this questionnaire to the researcher, you are voluntarily agreeing to participate. If you have any questions about the study, please contact the researcher and/or the thesis supervisor via email or phone.

Betül Mutaf, MA Candidate Hacettepe University ELT Department Beytepe, Çankaya 06800, Ankara Phone : (543) 271-9777 E-mail: betullmutaf@gmail.com	Hüseyin Öz, Thesis Supervisor Associate Professor Hacettepe University ELT Department Beytepe, Çankaya 06800, Ankara Phone : 312-297-8575 E-mail : hoz@hacettepe.edu.tr
--	---

APPENDIX-G: Ethics Committee Approval



T.C.
HACETTEPE ÜNİVERSİTESİ
Rektörlük

Tarih: 27/04/2018 09:57
Sayı: 35853172-755.02.06-
E.00000017681



Sayı : 35853172-755.02.06
Konu : Etik Komisyonu Hk.

EĞİTİM BİLİMLERİ ENSTİTÜSÜ MÜDÜRLÜĞÜNE

İlgi: 11.04.2018 tarih ve 934 sayılı yazımız.

Enstitünüz Yabancı Diller Eğitimi Ana Bilim Dalı İngiliz Dili Eğitimi Bilim Dalı tezli yüksek lisans programı öğrencilerinden **Betül MUTAF**'ın **Doç. Dr. Hüseyin ÖZ**'ün danışmanlığında yürüttüğü "**Türkiyede'ki İngilizce Öğretmen Adaylarının Üst Dil Bilgilerinin Araştırılması / An Investigation of Metalinguistic Knowledge of Pre-Service Teachers of English In A Turkish Context**" başlıklı tez çalışması, Üniversitemiz Senatosu Etik Komisyonunun **17 Nisan 2018** tarihinde yapmış olduğu toplantıda incelenmiş olup, etik açıdan uygun bulunmuştur.

Bilgilerinizi ve gereğini rica ederim.

e-izmalıdır
Prof. Dr. Rahime Meral NOHUTCU
Rektör Yardımcısı

APPENDIX- H: Declaration of Ethical Conduct

I hereby declare that...

- I have prepared this thesis in accordance with the thesis writing guidelines of the Graduate School of Educational Sciences of Hacettepe University;
- all information and documents in the thesis/dissertation have been obtained in accordance with academic regulations;
- all audio visual and written information and results have been presented in compliance with scientific and ethical standards;
- in case of using other people's work, related studies have been cited in accordance with scientific and ethical standards;
- all cited studies have been fully and decently referenced and included in the list of References;
- I did not do any distortion and/or manipulation on the data set,
- and **NO** part of this work was presented as a part of any other thesis study at this or any other university.

10/07/2019



Betül MUTAF

APPENDIX-I: Thesis Originality Report

HACETTEPE UNIVERSITY
Graduate School of Educational Sciences
To The Department of Foreign Languages Education

Thesis Title: An Investigation of Metalinguistic Knowledge of Pre-Service Teachers of English in a Turkish Context

The whole thesis that includes the title page, introduction, main chapters, conclusions and bibliography section is checked by using Turnitin plagiarism detection software take into the consideration requested filtering options. According to the originality report obtained data are as below.

Time Submitted	Page Count	Character Count	Date of Thesis Defence	Similarity Index	Submission ID
24/04/2019	91	152.726	18/06/2019	%15	1116849828

Filtering options applied:

1. Bibliography excluded
2. Quotes included
3. Match size up to 5 words excluded

I declare that I have carefully read Hacettepe University Graduate School of Educational Sciences Guidelines for Obtaining and Using Thesis Originality Reports; that according to the maximum similarity index values specified in the Guidelines, my thesis does not include any form of plagiarism; that in any future detection of possible infringement of the regulations I accept all legal responsibility; and that all the information I have provided is correct to the best of my knowledge.

I respectfully submit this for approval.

Name Lastname: Betül MUTAF
Student No.: N14228676
Department: Department of Foreign Languages Education
Program: Program of English Language and Teaching
Status: Masters Ph.D. Integrated Ph.D.



ADVISOR APPROVAL

APPROVED

Assist. Professor Dr. Ufuk BALAMAN



APPENDIX-J: Yayınlama ve Fikri Mülkiyet Hakları Beyanı

Enstitü tarafından onaylanan lisansüstü tezimin/raporumun tamamını veya herhangi bir kısmını, basılı (kâğıt) ve elektronik formatta arşivleme ve aşağıda verilen koşullarla kullanıma açma iznini Hacettepe Üniversitesine verdiğimi bildiririm. Bu izinle Üniversiteye verilen kullanım hakları dışındaki tüm fikri mülkiyet haklarım bende kalacak, tezimin tamamının ya da bir bölümünün gelecekteki çalışmalarında (makale, kitap, lisans ve patent vb.) kullanım hakları bana ait olacaktır.

Tezimin kendi orijinal çalışmam olduğunu, başkalarının haklarını ihlal etmediğimi ve tezimin telif hakkı sahibi olduğumu beyan ve taahhüt ederim. Tezimde yer alan telif hakkı bulunan ve sahiplerinden yazılı izin alınarak kullanılması zorunlu metinlerin yazılı izin alınarak kullandığımı ve istenildiğinde suretlerini Üniversiteye teslim etmeyi taahhüt ederim.

Yükseköğretim Kurulu tarafından yayınlanan "Lisansüstü Tezlerin Elektronik Ortamda Toplanması, Düzenlenmesi ve Erişime Açılmasına İlişkin Yönerge" kapsamında tezimin aşağıda belirtilen koşullar haricince YÖK Ulusal Tez Merkezi / H.Ü. Kütüphaneleri Açık Erişim Sisteminde erişime açılır.

- Enstitü/Fakülte yönetim kurulu kararı ile tezimin erişime açılması mezuniyet tarihinden itibaren 2 yıl ertelenmiştir. ⁽¹⁾
- Enstitü/Fakülte yönetim kurulunun gerekçeli kararı ile tezimin erişime açılması mezuniyet tarihinden itibaren ... ay ertelenmiştir. ⁽²⁾
- Tezimle ilgili gizlilik kararı verilmiştir. ⁽³⁾

10 /07 /2019


Betül MUTAF

"Lisansüstü Tezlerin Elektronik Ortamda Toplanması, Düzenlenmesi ve Erişime Açılmasına İlişkin Yönerge"

(1) Madde 4.1. Lisansüstü tezi yapılandırma başvurusu yapılmaz veya patent alma sürecinin devam ettiği durumda tez danışmanına önerisi ve enstitü ana bilim dalına uygun görüşü Üzerine enstitü veya fakülte yönetim kurulu 10 yıl süre ile tezin erişime açılmasına engelleyebilir.

(2) Madde 6.2. Yeni teknik, teknoloji ve metodoloji kullanıldığı, henüz makaleye dönüştürülmemiş veya patent başvurusu yapılmamış ve internetten paylaşılmaz durumda 3. şahıslara veya kurumlara hakları sakat; imkân olgulara bağlı bilgi ve bulgular içeren tezler hakkında tez danışmanına önerisi ve enstitü ana bilim dalının uygun görüşü Üzerine enstitü veya fakülte yönetim kurulunun gerekçeli kararı ile altı ay ertelenmek üzere tezin erişime açılması engellenebilir.

(3) Madde 7.1. Üstaki çıkarlar veya görevleri ifa edenleri, emniyet, disiplin, sağlama ve görevli, za'ım ve Anusları için lisansüstü tezlerle ilgili gizlilik kararı, tezin yapıldığı kurum tarafından verilir. Kurum ve kuruluşların yapıları içi ilgili protokolü çerçevesinde hazırlanan lisansüstü tezlerle ilgili gizlilik kararı ise, ilgili kurum ve kuruluşların önerisi ile enstitü veya fakültenin uygun görüşü Üzerine Üzerine ana bilim dalı yönetim kurulu tarafından verilir. Gizlilik kararı verilen tezler Yükseköğretim Kuruluna bildirilir.
Madde 7.3. Gizlilik kararı verilen tezler gizlilik aşamasında enstitü veya fakülte tarafından gizlilik kurulları çerçevesinde muhafaza edilir; gizlilik kararının kaldırılması halinde Tez Otomatizasyon Sistemine yüklenir.

* Tez danışmanına önerisi ve enstitü ana bilim dalının uygun görüşü Üzerine enstitü veya fakülte yönetim kurulu tarafından karar verilir.

