

APPROVAL



DEDICATION



To my mother and my family...

ETHICS DECLARATION

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Master Thesis (√) Ph.D. Thesis ()
Thesis Title : The Types of Prepositions in The Articles Prepared by the
Turkish Speakers of English and the Native Speakers of
English in the Field of English Language Teaching:
A Corpus-Based Study

I hereby declare that;

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I cited all sources to which I made reference in my thesis,

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13 / 12 /2019

Mehmet Emin KÖK

ACKNOWLEDGEMENTS

I would like to express my heartfelt gratitude to my supervisor Assist Prof. Dr. Zehra KÖROĞLU without whose expert and invaluable guidance this study could not have been prepared. I am also grateful to her for her continuous support, patience and supportive feedbacks throughout this study. I cannot express enough thanks to her for the completion of this study.

I want to express my special thanks of gratitude to the jury member Assoc. Prof. Dr. Gülden TÛM for her constructive comments and valuable contributions to my thesis.

I sincerely extend my profound appreciation to Prof. Dr. Şehnaz ŞAHİNKARAKAŞ who provided me with valuable academic knowledge during the academic course and contributed to this study with her precious suggestions as a jury member. I also want to express my sincere thanks to Assist. Prof. Dr. Seden TUYAN who shared their valuable academic experiences and worthwhile and inspirational ideas during the instruction period. Also, I would like to thank to Prof. Dr. Jülide İNÖZÜ for her invaluable instruction in Çağ University.

I would like to express my deepest and eternal gratitude to my mother Perihan KÖK and my sister Tevhide YILDIZ who strongly encouraged me for this study in my late years in teaching profession. My sincere thanks go to my wife Hale and my children for their constant support and understanding during the preparation of this study.

I would like to gratefully thank to my colleague Ahmet KEKLİK who was kind to answer my questions and contributed to this study especially during the analysis process of the study.

Finally, I sincerely thank Senay DEMİR and Aycan KOL who always and kindly helped me with official work and procedures regarding the whole MA program.

13 / 12 /2019

Mehmet Emin KÖK

ABSTRACT**THE TYPES OF PREPOSITIONS IN THE ARTICLES PREPARED BY THE
TURKISH AND NATIVE SPEAKERS OF ENGLISH IN THE FIELD OF
ENGLISH LANGUAGE TEACHING: A CORPUS-BASED STUDY****Mehmet Emin KÖK****Master Thesis, Department of English Language Education****Supervisor: Dr. Zehra KÖROĞLU****December 2019, 111 Pages**

Studies on corpus, which means a collection of a text that can be worked on, go back to early history. However, as a scientific field, corpus linguistics has gained much importance and improved greatly as a result of the developments in computer technology especially over the last six decades. Actively using computer technology, it is now easy to collect and analyze large volumes of texts in a specific or different languages either in a specific field or various fields, find the most frequently used words or the least used words, and evaluate sentences in terms of their lengths. This technology also allows researchers to compare two or more languages in terms of their linguistic characteristics and carry out several related works for different purposes on different texts that were collected. Analyzing authentic language data provides implications about how the specific elements in a language are used. Corpus studies are also used in English language teaching (ELT) and learning, and today most of the users of a language benefit from corpus reference sources such as grammar books and dictionaries. Prepositions have a significant place in English in terms of their types, and they have different characteristics compared to some other languages including Turkish. This study aims to examine the frequency of some types of prepositions such as the prepositions of space and movement, prepositions of time, prepositions that show logical relationship and participial prepositions, in the articles in the field of ELT prepared by Turkish speakers (TSs) of English and the native speakers (NSs) of English. In the present corpus study, the data were collected from a total of 100 randomly selected articles in the field of ELT, 50 by the TSs and 50 by the NSs. The preposition types that were used only in the abstract and introduction sections were

analyzed. The data were evaluated using Keyword in Context (KWIC) and Log-likelihood (LL) which are installed or browser-based programs that analyze frequency and log-likelihood of the prepositions in each type. The results of the study also showed the distribution of preposition types that the TSs of English and the NSs of English used in their articles. The study found that although there was a significant difference between the TSs and the NSs in terms of their corpus size, which was bigger in the former, prepositions that show logical relationship were the most salient type in the abstract and introduction sections of the articles of both groups of writers. Among these prepositions, “*of*” was with the highest frequency in both groups.

Keywords: Corpus linguistics, corpus, articles, ELT, preposition types



ÖZET**ANA DİLLERİ TÜRKÇE VE İNGİLİZCE OLAN YAZARLAR
TARAFINDAN İNGİLİZ DİLİ EĞİTİMİ ALANINDA YAZILMIŞ
MAKALELERDEKİ EDAT TÜRLERİ: BİR DERLEMBİLİM ÇALIŞMASI****Mehmet Emin KÖK****Yüksek Lisans Tezi, İngiliz Dili Eğitimi Anabilim Dalı****Tez Danışmanı: Dr. Öğr. Üyesi Zehra KÖROĞLU****Aralık 2019, 111 Sayfa**

Bir metin koleksiyonu üzerinde yapılan çalışmalar anlamına gelen derlem dilbilimi tarihin ilk yıllarına dayanmaktadır. Bununla birlikte, bilimsel bir alan olarak, derlem dilbilimi, özellikle son altmış yılda bilgisayar teknolojisindeki gelişmelerin sonucu olarak gelişmiş ve büyük önem kazanmıştır. Bilgisayar teknolojisini aktif olarak kullanarak belirli bir alanda veya çeşitli alanlarda, belirli bir dilde veya farklı dillerde büyük hacimli metinleri bir araya getirmek, en sık veya en az kullanılan sözcükleri bulmak ve cümleleri uzunluklarına göre incelemek artık oldukça daha kolay olmakla birlikte bu tür çalışmalar daha kısa sürede yapılabilmektedir. Bu teknoloji aynı zamanda araştırmacıların dil özellikleri bakımından iki veya daha fazla dili karşılaştırmalarını ve toplanan farklı metinler üzerinde farklı amaçlar için değişik ilgili çalışma yapmalarını sağlamaktadır. Özgün dil verilerini analiz etmek bir dilde belirli öğelerin nasıl kullanıldığı hakkında farklı sonuçlar elde edilmesini sağlamaktadır. Derlem çalışmaları İngilizce öğretimi ve öğreniminde de kullanılmaktadır ve bugün İngilizce'yi kullananların çoğu dilbilgisi kitapları ve sözlükler gibi referans derlem kaynaklarından yararlanmaktadır. Edatlar ve türleri İngilizce'de önemli bir yere sahiptir ve edatlar Türkçe dâhil diğer bazı dillere kıyasla farklı özelliklere sahiptir. Bu çalışma, ana dilleri Türkçe ve İngilizce olan yazarlar tarafından İngiliz dili eğitimi alanında hazırlanmış makalelerde kullanılan yer ve hareket edatlarının, zaman edatlarının, mantıksal ilişkiyi gösteren edatların ve ortaç türünden edatların kullanım sıklığını incelemeyi amaçlamaktadır. Bu derlem çalışmasında veriler 50'si ana dili Türkçe olan ve 50'si ana dili İngilizce olan yazarlar tarafından hazırlanmış ve rastgele seçilmiş toplam 100 makaleden toplanmıştır. Çalışmada sadece özet ve giriş bölümlerinde kullanılan edat

türleri analiz edilmiştir. Veriler dil öğelerinin sıklık ve olasılıklarını analiz etmekte kullanılan Keyword in Context ve Log-likelihood olarak isimlendirilen ve bilgisayara yüklü veya internet tabanlı kullanılabilen yazılım programları kullanılarak değerlendirilmiştir. Çalışmanın sonuçları ayrıca ana dili Türkçe olan ve ana dili İngilizce olan yazarların makalelerinde kullandıkları edat türlerinin dağılımını da göstermiştir. Çalışma, ana dilleri Türkçe ve İngilizce olan yazarların makaleleri arasında derlem büyüklükleri bakımından anlamlı bir fark olmasına rağmen ana dili Türkçe olan yazarlar tarafından yazılan makalelerin daha büyük bir derlem hacmine sahip olduğunu göstermiştir. Bunun yanında mantıksal ilişki gösteren edatlar her iki yazar grubunun makalelerinin özet ve giriş bölümlerinde tür olarak sık kullanımları yönüyle en göze çarpan edat türüydü ve bu edatlar arasında her iki grupta da “*of*” edatı en yüksek sıklıkta kullanılan edattı.

Anahtar Sözcükler: Derlem dilbilimi, bütünce, makaleler, İngiliz dili eğitimi, edat türleri

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ABBREVIATIONS

EFL	: English as a Foreign Language
ELT	: English Language Teaching
ESL	: English as a Second Language
KWIC	: Key Word in Context
LL	: Log-likelihood Calculation
NSA	: Abstract Section of the Articles in the Field of ELT Written by the Native Speakers of English
NSI	: Introduction Section of the Articles in the Field of ELT Written by the Native Speakers of English
NSs	: Native Speakers of English
TSA	: Abstract Section of the Articles in the Field of ELT Written by the Turkish Speakers of English
TSI	: Introduction Section of the Articles in the Field of ELT Written by the Turkish Speakers of English
TSs	: Turkish Speakers of English

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CHAPTER I

1. INTRODUCTION

1.1. Background of the Study

Contrary to the conditions in previous centuries when there were limitations for obtaining information, today's technology provides us tremendous opportunity in every aspect of life including the scientific world. Linguistic studies also take advantage of computer technology and use it effectively owing to the opportunities it provides in getting, archiving, categorizing and publishing samples of texts or listening tracks. Thanks to several websites and other online archives that are officially or unofficially collecting samples of natural texts and audio tracks, now it is very easy to get data. Corpus, in general meaning, is a collection of written or spoken material to be worked on, and according to Crystal (1991), it is a kind of first stop of linguistic description or a means by which hypothesis about a language can be verified. Sinclair (1991) describes corpus as a collection of pieces in a text that are electronically selected and are based on determined criteria. This collection reflects a state, type or variety of a language. Today, evolutionary developments in computer technology have also positively affected linguistic studies and, accordingly, larger amount of stored data, in other words corpus within the scope of this study, are now easily processed. Accordingly, corpus data provide opportunities to carry out studies with larger data and variables, and to design new types of classroom activities for learners to analyze the target language (Conrad, 2005). As a result, different elements of language, their types or frequency patterns are easily collected and analyzed.

Corpus linguistics is a scientific area that covers language studies built on examples of authentic use of language (McEnery & Wilson, 2001). The elements to be examined within the scope of corpus linguistics are the real-world spoken or written text collections. As it happens in all scientific studies, the data -based on real life provide the research with an empirical dimension (Tognini-Bonelli, 2001) thus, following a route from produced one or outcome to process. Today, corpus linguistics, in general, can be considered as a branch of computational linguistics where compilation of language elements and computer are used together. By effectively using a computer, frequencies or types of linguistic patterns in written or verbal language are statistically analyzed (Denham & Lobeck, 2013).

According to Kennedy (1998), the corpora stored by using different techniques or methods in computer have been around since 1960s, however, today's computer technology presents much larger storage capacity and faster analysis environments. Thus, it allows corpus linguistics, the scientific area that obtains and analyzes the naturally occurred language data, to process either qualitatively or quantitatively. Being a branch of linguistics by definition, corpus linguistics mainly tries to discover the fact of the language. It offers a particular approach to linguistics that includes empirical observation and analysis of authentically-occurring text, both spoken and written. In other words, corpus linguistics is the study on language related to real life language use.

Complete understanding of English prepositions is notoriously found difficult due to several reasons. One reason is that because they are mostly short words, they are seldom stressed when speaking and are not heard clearly. Another problem is that because prepositions have different types in English, non-native speakers of conceptually different languages may encounter difficulties especially when direct translation is the issue. Mindt and Weber (1989) argued that prepositions are parts of the essence of the English language and approximately every eighth word actively used in contemporary English texts is a preposition. Moreover, in the history of the English language, prepositions have also taken over the function of case endings.

Murphy (1990) noted that although prepositions are one of the grammar topics that are introduced first, users have persistent difficulties; also, English prepositions are, in general, considered rather problematic for EFL users for some linguists (Abd & Shah, 2014; Erarslan & Hol, 2014; Galleguillos, 2013; Hariri, 2012). In addition, according to Coleman (2003), although English prepositions are absolutely one of the most difficult elements of English for non-native speakers, native speakers of English too often are not fully conscious of how they are used in English. Moreover, some researchers argue that locative meaning is the basic meaning of prepositions which have several meanings (Hörberg, 2006; Tseng, 2000).

Prepositions are one of the most commonly used elements which many non-native speakers of English have problems either determining the types or using them both in written and spoken language correctly. This situation applies to languages whose structural and syntactical characteristics are different such as English and Turkish.

1.2. Statement of the Problem

As a part of grammatical system, prepositions are one of the language elements that can occur in every situation in the language (Morenberg, 1997). Some linguistic elements of English grammar are illogical, and speakers of other languages find them quite different from their own language; in addition, prepositions also offer exceptional challenge for non-native speakers of English (Lynch, 2010). Prepositions apparently seem insignificant; however, they play a key role in English. Since they have a wide variety of “linguistic functions” as Tetreault and Chodorow (2008) stated, this causes certain levels of difficulties particularly confusion among the learners, and the errors regarding with prepositions are the most common mistakes made by non-native speakers notably in their writing. Many prepositions have more than one usage (for example, a well-known English dictionary includes more than fifteen uses of “at” and using them correctly is important since they affect the intended meaning in English. Gedikoğlu (1987) reported that native speakers hardly ever make mistakes in the use of prepositions, but non-native speakers never learn them completely. According to Cooper (1968), non-native speakers reach an almost native-like understanding of prepositions with greatest difficulty at the advanced stages of language learning process.

Furthermore, learning prepositions, in other words, how to use them correctly can sometimes be a great challenge for the individuals who try to use as a second language, within our context, English. There are some reasons that make mastering prepositions challenging. One of the problems stems from the fact that prepositions are frequently used in English and seem to appear everywhere with different forms and roles. They can be used before nouns (*on* Sunday, *with* a hammer), in front of gerund verbs (*by* shouting), as part of a phrasal verb (turn *on*), in other words idiomatically, or after adjectives (fond *of*). This can mean that providing learners with a simple rule and explaining when and how to use them is difficult. In addition, prepositions can function as an adverbial (e.g. “The tourist group walked *towards* the rising sun on top of the mount.”) and conjunctions (e.g. “We must finish all the preparations *before* their arrival.”) causing a problem for the learners. Another challenge to acquire using prepositions is their statuses in the language. Linguists defined their statuses differently. According to them, for example, prepositions are functional words (Saint-Dizier, 2006), cementing words (Ingvel, 1977), structural words (Hoffmann, 2005) and even empty words (Sweet, 1936) and they vary among languages. Another point to be noted here is

that when there is no correspondence between the uses of preposition in the native and target languages, the learners may have problems in the acquisition of prepositions, regardless of their mother tongue (Celce-Murcia & Larsen-Freeman, 1999). This is more clearly seen in the native and target languages which are different from each other in terms of syntax and semantics where English and Turkish can be given as an example for the case. Turkish and English are distinct languages with regard to their syntactical and semantical properties; therefore, Turkish learners of English experience problems while learning prepositions in English (Evin, 1993; Gedikoğlu, 1987). Learning English prepositions is a difficult process for native speakers of Turkish (Açak, 2001). English prepositions are lexically independent, but in Turkish, their functions are conducted by case-suffixes or postpositions which come after their complements.

Another problem with prepositions is that many of the words described as prepositions can also function as other parts of speech. As Biber (2000) emphasized, the overlap issue between prepositions and other language items such as nouns, adjectives and adverbs, whether a word is a preposition or not depends on how it is used in a sentence. According to Wahlen (2001), prepositions used in English do not have a clear set of governing rules which are usually complex, and sometimes are unable to establish accuracy. The uncertainty about what preposition to use even exists in British and American English. For example, American English speaks of “to fill *out* a questionnaire”, but in British English it is common to say “to fill *in* a questionnaire”. The problem is further exacerbated by regional or social varieties of English in which prepositions are used in idiosyncratic ways.

In a study in which Tüm (2013) discussed The Common European Framework (CEFR), she compared Turkish and English from different linguistic aspects including prepositions and noted that while prepositions in English are single language items, they appear in the form of postpositions or suffixes in Turkish, which could implicitly be a challenge for Turkish learners of English. Besides the difference in the functions of prepositions between Turkish and English, the variation in their meanings and uses also are other points where the problem of using prepositions appropriately arises. This is very clear in using basic English prepositions “*in*”, “*on*” and “*at*” when they are used expressing time. While they are used with different words expressing time, in Turkish this difference is ignored, and the corresponding meaning is given the same for all kinds of words expressing the same meaning. Usages of “*in*”, “*on*” and *at* as prepositions of place can also be given as an example. Similarly, other prepositions such as “*under*”,

“*below*”, “*over*”, “*above*” are used more simply in Turkish contrary to in English. For example, in English “We lie *in* the sun.” whereas in Turkish “We lie *under* the sun.”. Since some prepositions of time also designate expressions of place and location as stated above, non-native speakers of English who have not fully mastered the types of prepositions turns it into a matter of guesswork. Therefore, examining the comparison between these two languages (Turkish and English) regarding the types of prepositions is important, and this study will shed a light on the frequency of the preposition types of the TSs and the NSs.

1.3. Purpose of the Study

This study aims to evaluate the preposition types in the abstract and the introduction sections in the academic articles which were written by the Turkish speakers (TSs) of English and the native speakers (NSs) of English in the field of ELT. This study on using English prepositions determines the distribution of prepositions and frequency order as well as their types. The study does not seek whether the prepositions were used correctly or not in the specified sections of the articles, but it just focuses on the distribution of preposition types used by the TSs and the NSs and gives an idea on the preposition types used.

The study utilizes a design within the context of corpus linguistics which is an important area of computational linguistics. According to Collins Dictionary online, “corpus linguistics is a method that represents a digestive approach to deriving a set(s) of abstract rules by which a natural language is governed or relates to another language” (Collins, n.d.). Considering today’s modern world, it is regarded as the study of language data on large scale with computer-aided analysis of large collections of transcribed statements or reproduced texts. Corpus linguistics provides large quantities of empirical language databases that are accumulated systematically from several areas of actual language use and follows some statistical methods and techniques.

In teaching or learning foreign language, the importance of corpus is related to its significance in the empirical study of extensive databases of language. According to McEnery and Wilson (2001), the corpus is the only dependable source of grounds for features such as frequency. Frequency is an aspect of language that plays a major role to understand what is possible and what is likely to feature in a particular language (Granger, 2002). The main objective of corpus linguistics is to present accurate

explanations for quantitative and qualitative descriptions of language use which are based on representative samples of real or natural usage. Here, the information regarding the distribution and the frequency of different forms, phrases and functions under different linguistic conditions are important (Sigley, 2006).

In this study, first, the distribution of preposition types in the abstract and sections of the articles of the TSs and the NSs were examined because abstract sections, which started to appear in published manuscripts in the 1950s (Zhang & Liu, 2011), are condensed versions of studies. Abstract sections are also compared to film trailers as they present previews with highlights so that viewers decide whether they should want to see the whole work (Editageinside, n.d.). Annesly (2010) argued that an abstract is ‘elevator talk’ in which an author summarizes the basic information that the article conveys. In addition, it is where the author aims to get the reader interested in the content of the paper. Therefore, authors who prepare academic manuscripts pay careful attention to writing a good abstract for their studies by keeping the sentences short, accurate and simple, and they present a comprehensive summary of the content of the paper without adding their interpretation.

Afterwards, the introduction sections of the articles were analyzed since one of the most necessary sections of academic manuscripts is introduction where authors mainly provide some background information about the context of the study by describing the research problem. They are also where the context of the study is set. According to Day (2000), introduction sections of scientific articles are important because they can indicate the conclusion of the papers. For some, like Summers (2001), it is the part of an article that sells itself. The introduction section is also important because it demonstrates the scope, content, and significance of the study, summarizes background information and current understanding about the subject, expresses the aim of the study through a hypothesis or a set of questions. A study conducted by Geçikli (2012) on the introduction sections of the manuscripts written in the field of ELT found that the introduction sections examined in the study ranged between 2-35 pages and that they included main sections and subsections connected to each other.

1.4. Research Questions

This study focuses on the answers of the following research questions:

1. What are the most salient preposition types in the academic articles written by the Turkish speakers (TSs) of English and the native speakers (NSs) of English in the field of ELT regarding the abstract section?
2. What are the most salient preposition types in the academic articles written by the Turkish speakers (TSs) of English and the native speakers (NSs) of English in the field of ELT regarding the introduction section?

1.5. Significance of the Study

Today, the use of technology is felt in every part of life and scientific studies including those conducted in language studies also enjoy the ease that technology offers. Once used for rearrangements of historical and holy scripts, corpus studies, in which working on the elements or chunks of the content was very difficult, now enable us not only to classify the knowledge but also to see, examine and compare several other aspects of written texts such as types, branches, authors or dates of the studies. We, in this modern and more technological world, have much more information than before about the differences in language, and corpora allow us to observe significant variations in the frequency of many linguistic items or structures both in a language itself and between two different languages. Accordingly, this study mainly discusses the difference of preposition types between the Turkish speakers (TSs) of English and the native speakers (NSs) of English in a corpus-based design research.

This study provides useful and valuable information because it shows the frequency of using prepositions and the preposition types the authors included in their articles. This study also reflects how Turkish speakers acquire or internalize the types of prepositions; as Boulton (2009) reported, corpus-based approaches could bring benefits to learners both with regard to their language awareness and probably also in acquisition of their language. Turkish has prepositions similar to those that are in English in terms of their functions, but as the ones in English have different types and are used with several word categories (e.g. time, place, movement etc.), they have varieties in the language and present Turkish speakers of English with problems in fully understanding them.

1.6. Description of the Key Terms

Concordance: A concordance is a list of words which are used in a specific text or a work prepared by a particular author. It also includes the contexts where each word (usually most frequent grammatical items such as prepositions, articles etc.) takes place. Concordances today, with the help of computer programs regarding the purpose, are widely used to analyze texts, determine word frequencies, samples of works, stylistics or registers. In addition, they are valuable sources in preparation of dictionaries showing how words occur in a language, so they directly function as a tool in language learning (Richards & Schmidt, 2002).

Corpus: A corpus (plural “corpora”) refers to a large collection of written or spoken texts that are stored and processed on a computer for language research (Renouf, 1987). It is a large set of texts (spoken, written, or both) gathered using computer to stand as a representative example of a language or some part of it. In other words, corpus is a compilation of naturally happening samples of language which have been gathered for easy access by researchers who want to study on how words and other linguistic items are characterized and actually used.

Corpus Linguistics: In general, corpus linguistics is a methodology where large collections of language words or data are analyzed either quantitatively or qualitatively by computer to establish frequencies and patterns of appearance. It can be applied in almost any area of language studies as the object of a study is authentic, naturally occurring language use. (University of Helsinki, 2016). It is also an approach to examining structures of languages and use through the analysis of large databases of authentic language examples.

Native Speaker (NS): Anyone who speaks a language as their first language rather than having learned it as a foreign language (Collins, n.d.). In this study, the native language referred is English, thus the native speakers are native speakers of English.

Preposition: Prepositions are function words typically used with nouns, pronouns and gerunds grammatically to connect them other words. They are the elements that govern, modify and usually precede a noun or pronoun and express a link to another word or element in the clause (Oxford, n.d.).

Turkish Speaker (TS): A person who speaks Turkish as his or her first language rather than learning it as a foreign language (Merriam-Webster, n.d.). They can also be called as native speakers of Turkish.

1.7. Limitations of the Study

The present study focused on the types of prepositions in the articles written by the Turkish speakers (TSs) of English and the native speakers (NSs) of English in the field of ELT. Articles published between 2009-2018 were included, and the types of prepositions only in the abstract and the introduction sections of these articles were analyzed.

In literature, preposition types have been classified from several perspectives with different counts and qualities. The study was limited to the distribution of only the most common types of prepositions such as i) prepositions of space and movement, ii) prepositions of time, iii) prepositions that show logical relationships, and iv) participial prepositions (Maclin, 2016).

CHAPTER II

2. LITERATURE REVIEW

2.1. Corpus

From etymological perspective, acquired by English during the fourteenth century (Ayto, 1990), the Latin-origin word, corpus (plural “corpora”) -meaning “body”- in linguistics was described as a body or collection of texts, statements, literary documents or other specimens considered approximately representative of a language, and usually stored as an electronic database (McArthur, 1992). According to Sezer (2010), it is the data collated from written or spoken language that are used to obtain linguistic data or to produce hypothesis about a language. Corpus is defined as a compilation of large-scale written or oral texts collected to be used in a linguistic research, and a collection of articles prepared by a writer or on a specific topic (Collins Dictionary, n.d.) Based on the second definition of corpus, it means the essay or compilation of an author's works. For example, “Darwinian corpus” would mean all the collected works written or prepared by Darwin. In Oxford English Dictionary, corpus is described with two definitions: i) a set of written texts, particularly those involving a specific author or a collection of texts on a specific subject to be used in linguistic research, ii) (in anatomy) a mass or a structure in the main body (Oxford English Dictionary, n.d.). McEnery and Wilson (2001) claimed that any collection of more than one text may be regarded as a corpus in general. A corpus, which can be composed of written texts or spoken materials transcribed or both, is a set of texts collected in computer-readable form and use for different purposes. Slightly different from generally similar definition of corpus, Hunston (2002) argued that corpus is the compilation of texts or parts of text that were reserved, electronically stored and accessed as now computers give us a considerable opportunity to process a great amount of information contrary to small, paper-based collections that were available in the past.

According to Baker et al. (2006), a corpus is a collection or a body of language or texts that are stored in an electronic database. Meyer (2002) argues that corpus is a collection of texts or parts of texts that some linguistic analyses can be performed on. Francis and Kučera (1964) note that corpus is a compilation of texts which represent a specific language, or other subgroups of a language that are used for linguistic analyses. On the other hand, according to Crystal (1995) it is a large collection of linguistic data

in the form of written texts or a transcription of recorded speech. In addition, this collection can be used as a first point of linguistic description or as a means that allows to verify hypotheses about a language.

Today, there are many well-known and reliable corpora such as the Corpus of Historical American English (COHA), the British National Corpus (BNC), the Time Magazine Corpus (TMC), and the Corpus of Contemporary American English (COCA) (Osipova, 2018) and much of the textual materials for corpus is available on the Internet. Furthermore, they may easily be downloaded free of charge. Some computer archives also include large quantities of several materials and academics can utilize them non-commercially. A corpus contains millions of linguistic items, so it is regarded that creativity of natural language results in such a great number of expressions that it is difficult to separate the recent patterns that are the indications to the lexical structure of the language.

Basically being a scientific collection of language items, corpora contribute to understanding linguistic features of a language in some ways. For example, they supply information regarding different components (e.g. words, phrases, sentences, phonemes, idiomatic expressions, compound patterns, lemmas, etc.) existing in a language, or their properties. As Kennedy (1998) noted, corpora can be used as a tool for conducting different kinds of analyses that include providing hints to the areas out of linguistics through the information regarding the agent, place or time of a language event, clues about usage-based characteristics of the target language community (e.g. discourse, pragmatics, idiomatical or figurative expressions, allegorical or metaphorical styles etc.) and cultural and social background of a linguistic discourse. Corpora provide grammatical and functional aspects of the language items such as types and uses of affixes, linguistic compositions, forms, usage patterns (McEnery et al., 2006). Accordingly, corpora show objective verification of results and present idealized, concrete and real examples of words or phrases, not imaginary uses. The data obtained from corpora indicate what language items appear frequently and what language items occur rarely in the given language.

2.2. Characteristics of Corpus

By pointing out its close relationship between today's computer technology with the concept of corpus, Dash (2005) argued that corpus may be explained acrostically as

(C)ompatible to computer and man, (O)perational in research and application (R)epresentative of a language or a variety (P)rocessable by both man and machine (U)nlimited in the amount of data, and (S)ystematic both in formation and representation. These are also some characteristics of corpus. Some linguists argued that corpora can be used to calculate the frequency of appearance of items and, as archives of actual instances of language use (Thomas & Short, 1996; Leech, 1993).

One of the basic features of corpus is that the samples or items are preserved systematically and reliably in a computer so that these data, which are authentic can be samples and referential, are made ready for future verification and validation. Corpus, which is machine readable, also shows all linguistic varieties proportionally, thus giving a general impression about the language in question. It represents specific and common linguistic characteristics of a language from which it is developed. Representativeness is another defining and important aspect of corpus as it reflects varieties in a language if the results based on its content are generalized. Biber (1993) noted that representativeness is about the extent to which a selected item includes the scope of variability in a group of people or population where the language is actively used.

Size or, in other words, quantity is another feature of a corpus and is related to representativeness. Summers (1991) discussed it with reference to some empirical issues and claimed that even if a corpus containing one hundred million words is too small when it is compared with the total amount of texts from which a corpus is formed. Size that forms the body of a corpus can be considered as the sum of the total linguistic items and today's technology allows us to enlarge the size of corpus rather quickly. A bigger corpus will yield a better reliability and authenticity. On the other hand, small corpus can be advantageous because it can demonstrate richer language property and include more hits from specific language. In their definition of corpus, McEnery and Wilson (1996) reflect corpus by its inherent features which are: (a) corpus is any body of text (loosely), (b) a body of text that can be read by machine (most commonly), and (c) it is a finite collection texts which can be taken as examples of a language or variety (more strictly) and processed by machine. Language is a dynamic system that new linguistic items or data enter it over time; therefore, corpora augment and continue to grow in parallel with the expansion in the language. In addition, a corpus provides linguistic clues about the changes in the life and society of the language it is used as it extends over quite long periods of time.

A corpus is not only compiling language elements; it also includes proper formatting of these data properly. This means that the data in the corpus can easily be retrieved by users. The current technology allows users to create a corpus on personal computers to store and get the data back when needed. However, a corpus does not serve only those who conduct linguistic studies; it is a ready-to-use data source for individuals in different walks of life (teachers, researchers, historians, students, advertisers, etc.) thus needing to be prepared in a simple form so that ordinary people could use it. For example, as Hyland (2002) noted, corpus technology features great potential in writing in a second language in which the users of the language integrate grammar, vocabulary and discourse patterns of specific types of writing. Since the specific language items included in the corpus are verified for further studies, the data are meticulously designed or documented.

2.3. Corpus Linguistics

Corpus linguistics in general refers to a methodology that provides some sophisticated devices that allow to analyze the corpora and to extract linguistic data, examples, and information for linguistic studies. The increasing speed and capacities of computers have affected many other aspects of life as well as the works on language. Compared to previous periods, it is now possible to analyze spoken and written texts in many ways through creating large databases in language studies. This development has changed the way people understand, teach and learn a language (McEnery et al., 2019). In principle, corpus linguistics reflects various aspects of a language using collections of literary or non-literary texts and includes a large number of data about the actual use of that language. It aims at assessing to which extent the language is formed in a given spoken or written text and analyses the contextual factors that influence linguistic diversity of language items. According to Curzan (2012), corpus linguistics is a detailed study of electronically-collected texts using computers. Gries (2009) argues that corpus linguistics is among the fastest developing methodologies in contemporary linguistics. It is applied as a methodology in linguistic studies and is used as a means of reference for grammar books, textbooks and dictionaries (Akabana, 2011). Corpus linguistics provides researchers, linguists, teachers or students with an environment in which they can see real language data by showing how language elements function. It also contributes to show the richness of a language through presenting certain types of language items,

frequently used words and expressions. Gajic (2010) states that corpus linguistics is reflection of the collections of real-life texts, and it analyses these collections.

Corpus linguistics has been used in many areas throughout ages, for example, in analyzing religious texts, linguistics, language teaching, grammar resources, and so on. According to Farr (2008), corpus linguistics has a wider definition and he claims that it is also used in many disciplines such as linguistics, dialectology, forensic linguistics, linguistics, language therapies, sociolinguistics, literary works, etc.

Sinclair (1997) describes corpus linguistics as the study of language by conducting corpus-based research; however, it differs from traditional linguistics in terms of focusing on the systematic study of real examples of language. In today's modern world, language studies have benefited from technological developments and the term "computational linguistics" has been started to be commonly used. In another way, it is a scientific approach that aims to analyze different characteristics of language by examining collected large text samples. According to Granger (2002), corpus linguistics as a kind of methodology, but this methodology is a linguistic methodology which is based on the analysis of electronic and linguistic data. In addition, corpus linguistics cannot be considered as a branch of linguistics or language theory because the quality of the evidence used in this field makes it a methodology.

McEnery and Hardie (2012) claimed that corpus linguistics is a scientific field that focuses on a set of methods or procedures to conduct studies on a language. Corpus-based techniques using computer-corpus methodology provide greater suitability for conducting quantitative research opportunities like quantitative comparisons of a wide range of linguistic features in corpora that represent several varieties of languages in texts. In addition, the items or elements examined in corpus linguistic studies are basically direct and are based on what the researcher observes in corpus. McEnery and Wilson (2001) argued that empirical research can be conducted by using any written or spoken text, and such individual texts lie behind the basis of various kinds of analysis in linguistics.

According to Leech (1992), in corpus linguistics i) linguistic performance is more important than competence, ii) linguistic description is more prominent than linguistic universals, iii) it focus on both qualitative and quantitative models of language, and iv) it follows a more empiricist method rather than a rationalist perspective of scientific inquiry. Mahlberg (2005) describes corpus linguistics as a "corpus theoretical approach" to the description of English with its own theoretical

framework. Rissanen (2004) discussed corpus linguistics from a different aspect and argued that it solves the problems that could be perceived as something that was previously very time-consuming. It also shows the connections between linguistic concepts that were likely to remain vogue. Consequently, corpus linguistics including corpus-based studies can be argued to serve as a basis for empirical and linguistic studies using real life sources and the data collected and analyzed by using specific software programs.

2.4. History of Corpus Linguistics

Although corpus research seems a modern field of study because technology, especially computer technology, is widely used within its context, it dates back to the thirteenth century when the first samples of corpora in Bible concordances were manually elaborated on (Meyer, 2008). The aim of these studies was to simplify the arranging words in Bible in an alphabetical order and specify where the citations occurred, allowing the words to be better identified by their locations in the book (O’Keeffe & McCarthy, 2010). *Concordantiae Morales*, attributed to Saint Antony of Padua (1195-1231), is the first known anonymous Bible concordance. *Correctio Bible* by Hugh of St. Cher (1200-1263) and probably, a team of scholars with him were the first theologians who compiled a collection of several readings of the Bible in Latin including a word index.

Teubert (2005) reported “the historical developments of corpus linguistics dates back to two hundred years ago, when the philologists embraced the philosophy of the enlightenment and set off to find the laws that make language work” (p. 2). However, further attempts to study on holy scripts as well as literary texts, grammar and dictionary compilations seem to have flourished as of the eighteenth and nineteenth centuries. Commonly known as *Cruden's Concordance*, *Complete Concordance to the Holy Scriptures* prepared by Alexander Cruden (1701-1770) was a dictionary and alphabetical index to the King James Bible. The first edition of this work was first published in 1737. In his life, Cruden witnessed two editions of *Concordance* in 1761 and 1769, the latter of which was dedicated to the King. In 1762, Robert Lowth, a bishop and an academic by profession, compiled his famous work *Short Introduction to English Grammar*. It was so successful that it was printed around more than 40 times between 1762 and 1800. The work also included a list of irregular verb forms of the past

tense and past participle that are not in use anymore. *Dictionary of English* prepared by Johnson in 1775 included illustrative quotations. This work was one of the compilations that pioneered the creation of famous *Oxford English Dictionary*, which was completed in fifty years (and would be published 1859) and is considered among the first dictionaries in corpus studies (Meyer, 2008). *A Concordance to Shakespeare* prepared by Andrew Becket in 1787 was another literary work that included methodologically arranged parallel passages and inspired others to produce hundreds of studies considered to be among corpus studies. Another example is *'Exhaustive Concordance of the Bible* prepared by James Strong in 1890, which included an index of words in the Bible (O'Keeffe & McCarthy, 2010). In 1897, German linguist J. Käding collated 11 million words and analyzed the frequency of certain letters and their distributions in German (McEnery & Wilson, 1996). Otto Jaspersen (1860-1943), Charles Carpenter Fries (1887-1969) and George Oliver Gurme (1860-1948) were distinguished linguists and grammarians who contributed to corpus studies during the late nineteenth and early twentieth centuries. These years were also the time when corpus studies were intensively started to be used in language studies based on the compilation of paper-based data. Fries is known as the first grammarian who used written and spoken texts as a source of data for his grammar study as well as examining frequency and common and uncommon linguistic items and patterns (Meyer, 2008). There were also some studies in the first half of the twentieth century that corpora were used in foreign language teaching such as *The Teachers Word Book* by Thorndike (1921), *English Trough Actions* by Palmer (1925), *The History and Principles of Vocabulary Control: As It Affects the Teaching of Foreign Languages in General and of English in Particular* by Bongers (1947) and so on. In 1959, Randolph Quirk started to compile the *Survey of English Usage* (SEU), which is the first most important pre-electronic corpus containing about 1 million words in written and spoken texts collected with paper slips.

However, the history of English corpus linguistics in modern sense goes back to 1964s, when the first computer-based corpus of the English language, the *Brown Corpus*, was generated (Francis & Kučera, 1964). As a synchronic corpus of American English, *Brown Corpus* aimed to create a standard sample of modern English for use with computer (Starvik, 1992), and now it contains nearly 1 million words from a variety of sources including 500 samples, distributed across 15 genres in rough proportion to the amount in each of those genres. Along with the rapid developments in computer technology, especially in personal computers, things started to change in the

late 1970s, when a lot more studies were included in the computers, databases and the scope of the corpus research went beyond its previous borders. This development accelerated along with the introduction of analytical tools and software programs such as MonoConc, log-likelihood (LL) and Wordsmith Tools. In 1975, the Swedish linguist Svartvik worked on to create *London-Lund Corpus of Spoken English*. On the other hand, the first synchronic corpus of British English, the *Lancaster-Oslo / Bergen Corpus*, was published in 1978 (Johansson, Leech & Goodluck, 1978). Then, the first diachronic corpus of English, the *Helsinki Corpus of English Texts*, which covered the entire history of the English language from Old English to the end of the Late Modern period, was compiled in 1991.

Based heavily on technology that provides finding, studying, categorizing and evaluating linguistic items in the texts much more easily, modern corpus linguistics gained more success and popularity which has continued to the present day. As McEnery et al. (2019) reported, computational technology today allows quick searches in the field of corpus linguistics as well as detailed statistical analyses of corpora with large sizes. Now, as a result of growing developments in compiling computerized corpus data, researchers are able to store, retrieve whenever needed, and process linguistics data, conduct qualitative and quantitative studies, evaluate the frequencies of the language items in texts, compare the types of words, examine synonym matches or collocation patterns and do relevant studies considering the different aspects of the language in question.

2.5. Approaches to Corpus-based Research

During the 1950s, when corpus studies were not able utilize computer technology effectively, the concept of corpus and corpus studies in linguistics received some criticism. In those years, views of the generative grammarians were dominant and corpus linguistics appeared as a controversial matter of discussion between the generative grammarians and corpus linguists. One of the issues they had different perspective was adequacy and performance. Chomsky (1965) argued that in linguistics, observational, descriptive and explanatory levels of adequacy can be evaluated and, contrary to generative grammar aiming to achieve explanatory (the highest level) adequacy, corpus linguistics' goal was to attain descriptive (a lower level of) adequacy. Meyer (2002) summarizes this "While grammarians strives for explanatory adequacy

(highest level), the corpus linguist aims for descriptive adequacy (lowest level)” (p. 1). Chomsky (1965) criticized corpus linguists proposing that corpus is just a source of information. He also argued that linguists should search model language rather than performance and corpus is not an acceptable source of evidence which would be a useful tool for linguists.

According to Chomsky, a linguist should model the competence, not the performance, since it explains and characterizes speaker’s knowledge of the language. In addition, performance cannot reflect the competence, some other factors can influence it, and corpus does not offer effective starting point for linguistic competence (Chomsky, 1962). Corpus linguists opposed grammarians and argued that speaker intuitions do not support empirical evidence; whereas, grammarians put forward that the only thing descriptivist approach was involved was counting and collecting data. Reacting Chomsky’s views, Leech (1992) highlighted the distinction between competence and performance through stating that the latter is not as great as it is often emphasized, and a corpus can be used as a basis for any theoretical issue. It also provides a valuable source for verifying the completeness, falsifiability, simplicity, strength, and objectivity of any linguistic hypothesis.

Another point of criticism was about the fact that corpus was insufficient to explain the language however natural it is, and the rules are repetitive. Accordingly, there might be an infinite number of prepositional phrases enclosing an infinite number of noun phrases in a sentence. Chomsky argued that corpus is not enough to reflect the language by labeling the it “skewed” and noting that some sentences cannot come into existence due to some external factors (e.g. for being inappropriate, rude or false) (McEnery & Wilson, 1996). Chomsky (1962) noted “Any natural corpus will be skewed. Some sentences would not occur because they are obvious, others because they are false, still others because they are impolite. The corpus, if natural, will be so wildly skewed that the description would be no more than a mere list (p. 159). Although generative grammarians and corpus linguists advocated different ideas on language from different aspects, corpora have enormous potential to contribute to language theories because of the resource it provides (Meyer, 2002).

In the 1960s, the years when the computer technology revived corpus studies since the texts became more readable, transportable, and were analyzed scientifically, different ideas emerged on how corpus linguistics can be defined. Along with improving technology around 1970s, detailed studies on lexis, syntax, discourse, etc.

paved the way to the revival of the empiricism based on observation of naturally occurring data as in corpus methodology. During the following decades, a great variety of data for language acquisition were recorded, stored and processed for specific purposes (Kennedy, 1998).

Gries (2010) argued that the relationship between corpus linguistics and traditional linguistics led to the emergence of several views on how corpus linguistics can be defined. It was started to be discussed whether it is a discipline, tool, method, approach, methodology or a paradigm. Leech (1992) argued that computer-based study is not just a newly emerging methodology for studying language, it is a new research enterprise and philosophical approach to the subject as well as being a new paradigm. Sharing a similar idea, Stubbs (1993) opposed the limited definition of corpus linguistics as a methodology and stated a corpus is not just an instrument of linguistic analysis but an important concept in linguistic theory. McEnery and Wilson (1996) argued that corpus linguistics is not a branch of linguistics such as syntax, semantics, sociolinguistics that generally concentrate on explaining or describing some aspects of language, but it is a methodology rather than an aspect of language that requires explanation or description.

Today, owing more to computer technology, corpus research obtains the data and processes them easily using several software programs. As Simpson-Vlach and Swales (2001, p. 1) reported, "Corpus linguistics is essentially a technology". This characteristic has led corpus research to go well beyond its methodological role making it an independent discipline as well as a research enterprise and a philosophical approach of linguistics theory. Consequently, corpus linguistics has large domain and can be applied to all areas of linguistic research and technology provides many opportunities for the researchers who can benefit from different online archives, websites, free or paid- software programs that officially or unofficially collecting samples of natural texts and listening tracks.

2.6. Corpus Studies in ELT

It could be asserted that there is a close relationship between corpus and language teaching since the data collected are derived from language and what is taught in a language are, in fact, parts of corpus. McEnery, Xiao and Tono (2006) stated that today there are many people who have never heard of corpus but are using the products

corpus research generates in both teaching and learning processes. Emphasizing usefulness of corpora in teaching and learning, Hunston (2002) argued that corpora are a valuable resource in language teaching in presenting authentic and real texts for language learners.

Along with the development of computer technology, using electronic corpora in language teaching has drawn growing attention in recent years and the relationship between corpus and English Language Teaching (ELT) has become prominent in the materials used. On the other hand, using corpus in language teaching has resulted from bringing facilities and materials into language classroom. According to Hanks (2008, as cited in Boulton, 2010) corpora are now almost common in the creation of reference materials such as language manuals, grammar books and especially dictionaries. Early studies of language materials based on corpus were conducted in the late 1980. Wichmann et al. (1997) argued that Sinclair's works on dictionary preparation and his leading corpus research have been the turning point for the language teaching approaches based on corpus. In particular, after the publication of the first corpus-based dictionary for learners of English, Collins COBUILD English Language Dictionary, in 1987, corpus studies received attention from many teachers and learners of English. As well as the dictionary, Collins COBUILD series including grammar books, concordance samplers and usage guides have provided teachers and learners of English with more reliable information than any other traditional sources or older non-corpus-based dictionaries (Goodale, 1995).

Since 1988, when an important article on the use of corpus-derived and corpus-based materials in language classrooms was published, an interest in performing corpus-based research in language teaching has developed (Balunda, 2009). Since corpus texts include authentic data, the importance of offering learners with real life language examples have been emphasized in many publications. For instance, Sinclair (1991) noted that the fact that invented examples may offer language better than real ones is an absurd notion. Similarly, Kennedy (1992, p. 366) stated that "invented examples can present a distorted version of typicality or an over-tidy picture of the system". Today, in addition to authentic language examples and dictionaries, learners of English can choose from several reference books and textbooks that are thoroughly corpus-based and including improved representations of the language.

According to Binkai (2012), inclusion of corpus in ELT has made an important influence both in methodology and in ideology. Before corpora was applied in language

teaching and learning, the knowledge of native speakers about the target language and their perceptions were relied on language description; however, corpora allowed us to gain a better understanding of how language is used, observe language changes and new insights into language structure (Tsui, 2004). Within this context, teachers can use corpora as a resource for preparing exams and make language change clear and learners have chances to be involved in building strategies and testing. As a result, as Heremans and Cuyckens (2012) reported following corpus-based methods in learning English can enable longer and more durable effect.

Corpus-based materials aimed to be used in the English classroom have other advantages, for example concordances offer a wide range of information on collocations, collates, meaning, word families and introduction of vocabulary in authentic contexts. Learners can also investigate strategies, control learning (Chapelle & Hunston, 2001), and actively participate in the learning process. Word lists including occurrences, collocations and clusters created by using different corpus software are valuable sources that enable learners to observe information on lexical or grammatical patterns in sample sentences of real language (Koosha & Jafarpour, 2006). In addition, analyzing corpus data is a useful tool in comparing the types of linguistics items, of prepositions in the present study. Reppen (2011) suggested that by using concordance, teachers may launch discussions on several language items such as words, collocations, phrases and guide learners to discover different language patterns.

Leech (1997) claimed that corpora can be included in teaching purposes directly and indirectly. The direct use of corpus is a tool to make the learner be familiar with how the language is used in real world. Here, learners are provided with authentic language using corpus tools and teachers are facilitators. Learners are expected to derive rules depending on the collection of language items and they can discover the language, which is called 'data driven learning' (DDL). As a key concept for using corpora in language teaching and learning DLL is related to authenticity in the classroom and it includes using the techniques and tools of corpus linguistics for teaching and learning a language. This method emerged in the mid-1980s and Johns and King (1991) also defined it as utilizing computer generated concordances in the classroom to let students explore the regularities of patterns in the target language, and the situation where exercises and activities based on concordance output are developed. In this method, an interaction between the learner and the corpus or, between the teacher and the corpus exists. Allowing the learners to be exposed to authentic language, corpora provide

learners with a large number of authentic circumstances of a definite language item. As a result, this ‘condensed exposure’, as Gabrielatos (2005, p. 10) called it, may contribute to elevated awareness of language items and vocabulary expansion. He also argued that the use of corpora in language teaching has changed the roles of the teacher and the learners in the learning process. In this process corpus has consolidated learner-centered methodologies and concept of teachers that regard them as the authority started to regard them as guides and mediators. Describing the learners as the individuals with different roles such as researchers or detectives (Johns, 1997, p. 101) and travelers (Bernardini, 2001, p. 22) they are involved in corpus data, formulate rules and obtain insights in the language, thus becoming more active, self-confident, autonomous and ‘empowered’ as Mair (2002) stated.

On the other hand, application of corpora in language teaching is related to corpus evidence in designing syllabi that include what teaching materials to be used in the classroom, publishing of reference sources, preparation of teaching materials or, in short, the ways exploiting to teach. Barlow (1996) stated that the outcome of corpus-based study may function as a tool for describing a language as well as input for learning a language, which means that corpus and the evidence generated from it can be influential in designing the courses and the content of the material. Within this context, according to Wahid (2011), preparation of text books and dictionaries is an example of indirect application. In active application of indirect method, learners are involved in identifying language items based on specific rules and teachers guide them through asking questions. Regarding the core issue of this present study, the results of Blom’s (2006) study reported that using corpora to teach prepositions would provide language learners with several well-established samples of prepositions.

2.7. Prepositions

Prepositions are important language items commonly used in languages, and in English with a corpus including one million words, one in ten words is a preposition (Fang, 2000). Morenberg (1997) stated that prepositions are always regarded as the most vital items in teaching English especially in productive skills (speaking and writing) (as cited in Mukundan & Norwati, 2009).

Many linguists have developed several approaches regarding the definition of prepositions from different perspectives; therefore, the concept of preposition has

several definitions in the relevant literature. For example, Shaw (1986) regarded prepositions are words that are used to show the link between a noun or pronoun or some other words in sentences. Mathews (1997) asserted that prepositions are words or groups of words appearing either before a noun or word groups that show syntactic relations. Yule (2006) explained prepositions by giving examples and reported that they are language items associated with nouns, and they provide information about when, what time or where the action took place; they provide information about other relations that include things and actions. From Musliyanti's (2012) perspective, a preposition is,

“a word that shows the relationship between two words in a sentence. Prepositions are always followed by nouns or pronouns. They are connective words that show the relationship between the nouns following them and one of the basic sentence elements: subject, verb, object, or complement. They usually indicate relationship, such as position, place, direction, time, manner, agent, possession, and condition, between their objects and other parts of the sentence” (p. 2).

According to Kosur (2008), a preposition is a word that forms relationship and presents a connection to place, time, possession, accompaniment or comparison. Prepositions are words that are often used to give information about place or time or to create adverbial modifiers (Byrd & Benson, 2001). To Swan (1998), most prepositions have several different functions such as expressing time, movement, place etc. Wishon and Burks (1980) argued that prepositions are connective words joining links between the basic elements and phrases of a sentence that they connect in several special occasions.

Yates (1999) notes that prepositions basically function to show a relationship between words, either noun or a pronoun, to define their relationships in the sentence. In other words, as Wishon and Burks (1980) claimed, they are connective links of basic elements of the sentences they join together. By making their definition much simpler and expressing their functions, Yule (2006) argues that prepositions are language items used with nouns in phrases that provide information about place, time, actions, direction and things.

Approaching to the issue more specifically, Lougheed (1983) claimed that prepositions are linguistic items that connect nouns and noun phrases to other structures. Similarly, Agoi (2003) argued that prepositions are the words that explain connection between nouns or noun equivalents. According to Stageberg (1981), prepositions are

generally followed by a noun, noun phrase, subject pronoun, or those that can substitute nouns, which are known as the object of the preposition. Furthermore, the structure in the form of preposition-plus-object of the regarding preposition is referred as a prepositional phrase. Using the term “satellite-framed” language, Talmy (1985) pointed that motion or movement can be lexicalized using verbs and prepositions in languages. In this model, a preposition is a constituent, in other words, a satellite to the verb.

Hamdallah and Tushyh (1988) verified that prepositions are mainly evaluated as functional items that establish a connection between phrases, clauses or other linguistic items in sentences. Similarly, for Klammer (2000), prepositions are the language items that have the function of establishing relationships between nominal units and groups such as nouns in a discourse. According to Huddleston (1984, p. 336), prepositions are “the subtlest and a set of small words that are of a closed class in English language”. He supported his ideas expressing that they show a link between two linguistic entities, one of which is represented by the preposition, and the other by another complement in the sentence.

Feigenbaum and Kurzon (2002) regarded prepositions as empty words whereas some researchers like Radford (2009) treated them as content words that bear specific semantic function. Thornbury (2002) viewed prepositions as functional words in grammar and he argued that they also contribute to grammatical aspect of the sentence. In addition, prepositions are reported to have three dimensions as type, meaning and use, and although learning the meanings and extensions of prepositions is perhaps the greatest challenge, a pedagogical strategy enabling students to pay attention to their co-occurrence, collocational, and discourse behavior will facilitate learners’ acquisition of these difficult lexico-grammatical forms (Celce-Murcia & Larsen-Freeman, 1999).

Since prepositions establish temporal and spatial relationships between word classes, they are regarded as a lexical category from syntactic perspective. According to Hartrumpf et al. (2006), prepositions have semantic roles and encode relations in information. In examining prepositions from semantic point of view, Zelinsky-Wibbelt (1993) considered them as lexical language items as well as they are being polysemous, thus resulting in expression with different concepts in terms of shape and dimensionality.

Prepositions, in general, are the words that show a relationship between linguistic items. They basically govern other words such as nouns, pronouns, noun phrases or gerunds in sentences. The relevant literature reports that these prepositions

are generally classified as prepositions of time, place or direction, manner, agent, as well as other specific classifications such as prepositions with temporal and spatial uses.

2.8. Types of Prepositions

There are many prepositions in English, and they are classified and discussed from different points of view. Lindstromberg (1998) noted that prepositions are generally classified into three categories: prepositions of time, of direction (or motion or movement) and of place, and, as mentioned before, these prepositions pose a challenge to the learners and users of English as a second language.

Distinctions of prepositions in terms of their uses or functions are generally based on their grammatical and local uses (Bennett, 1975; Lyons, 1968). When a preposition is used grammatically, it does not convey much meaning, in other words, it functions mainly as a syntactic marker. However, when the local uses are considered, there come temporal and spatial uses of prepositions. Temporal uses refer a point in time (e.g. The exam is *on* Friday, *in* six minutes) and are interesting in their own right. On the other hand, spatial prepositions specify a location or change in position of an object in space. According to Clark (1973), spatial prepositions can be broken down into locative or relational prepositions and directional prepositions (Bennett, 1975). Locative or relational prepositions describe the location of one object in relation to another (e.g. Bill is *in* the garden), whereas directional prepositions describe a change of position (e.g. Mary went *to* the changing room) or direction where an object is located (e.g. The arrow on the map pointed *to* the south). Locative/relational terms are often further divided as those which are topological and projective. Topological terms consist of prepositions such as *in*, *on*, and *near*, which usually refer to (static) topological relations between objects. It is also possible to further distinguish between the simple topological terms *in* and *on* and proximity terms such as *near* and *far*, which give information about the distance between objects. Some projective terms, such as *above*, *in front of*, and *to the left of* carry meaning about the direction where an object is located with reference to another object.

Klammer et al. (2004) listed 60 simple prepositions (e.g. *at*, *by*, *down*, *for*, *from*, *in*, *near*, *of*, *off*, *on*, *out*, etc.) and 39 complex prepositions (e.g. *in back of*, *in front of*, *on the other side of*, *on top of*, etc.). Most of the common English prepositions consisting of one word (e.g. *at*, *in*, and *for*) are simple, whereas other prepositions, that

consist of more than one word (e.g. *along with, away from, out of*) are called complex prepositions (Quirk & Greenbaum, 1989). Regarding the classification of prepositions Saint-Dizier (2006) noted:

“There are only about 50 prepositions in English (for other languages there is not always a consensus on what a preposition is). Here is a fairly complete list:

aboard, about, above, across, after, against, along, amid, among, anti, around, as, at, before, behind, below, beneath, beside, besides, between, beyond, by, despite, down, during, except, excepting, excluding, following, for, from, in, inside, into, like, near, of, off, on, onto, opposite, outside, over, past, per, plus, round, save, since, than, through, to, toward, towards, under, underneath, unlike, until, up, upon, versus, via, with, within, and without”. (p. 2)

According to Palmer and Blandford (1976), prepositions can also be examined in terms of their grammatical structures such as i) simple prepositions consisting of one word (e.g. *with, at, off*), ii) compound prepositions which are groups of words, and are also used as connectors or conjunctions (e.g. *in spite of, aside from, due to*). In addition, another type of prepositions, phrase prepositions (e.g. *apart from, from above, in spite of, etc.*), which consist of two or more words, functions like simple prepositions. According to Robert (1956), we write or speak these prepositions as separate items; however, they are used as single units, which are much simpler to regard as single prepositions.

Hooper (1980) reported that each preposition has a specific function, which when used incorrectly, the quality of what the speaker intends will be affected. He divided prepositions basically as two types, prepositions of time and preposition of place, and classified them into several sub-categories. Based his classification, prepositions of time are: i) “*at*” – refers a point in time, ii) “*in*” and “*on*” – show period of time, and iii) “*by*”, “*for*” and “*since*” – indicate extended duration or time. Preposition of place are i) “*at*”, “*in*”, “*inside*” and “*on*” – show the point, ii) “*into*” and “*to*” – refer towards the point, iii) “*by*”, “*beside*”, “*next*”, “*between*” and “*near*” – refer neighboring or being close to a point, and (iv) “*away*”, “*off*”, “*across*” and “*out of*” – indicate being away from a specific point.

Compound prepositions and prepositional phrases contain more than one word; therefore, they look identical and can be confused. Chalker (1989) drew attention

between these two concepts by making a distinction. According to him, a compound preposition is made up of more than one word and functions like a single preposition; however, prepositional phrases include a structure in which a prepositional complement (a noun phrase) is followed by a preposition.

Thomson and Martinet (1986) examined prepositions based on i) time and date (*at, before and on*), ii) time (*from, since, for, during, to, till/until, and after*), and iii) travel and movement (*from, to, at, in, by on, into, onto, off, out, and out of*). In addition, they investigated prepositions in specific patterns combined with adjectives (*afraid of, good at, keen on* etc.) and participles (e.g. *ashamed of, interested in, pleased with, etc.*), verbs (*attend to, comply with, refer to, etc.*). According to Prodromou (1999), prepositions can simply be studied as i) prepositions of time (*at, in, on*), ii) prepositions of place (*at, in, on*), iii) prepositions in movement phrases based on *at* (e.g. *arrive at, throw at, shout at, etc.*), *into* (*come into, go into, move into, etc.*), *to* (*go to, return to, run to, etc.*) and *towards* (*come towards, face towards, etc.*), and iv) prepositions after verbs and nouns based on *about, with, to, for, of, at, in, from, on, about, between*). In his study he presented verb and noun combinations in charts. Murphy (2003) classified prepositions based on their uses in specific patterns (*on time, in time, at the end, in the end, etc.*) and functional differences noting them as i) prepositions of time (*at, in, on*), ii) prepositions of place (*at, in, on*), iii) movement (*to, at, in, into*) and iv) prepositions with nouns (*cause of, reason for, demand for, etc.*), prepositions with adjectives (*nice of, polite to, annoyed with, happy about, etc.*) and prepositions with verbs (*stare at, talk to, shoot at, etc.*).

Pointing out the structural aspects of prepositions, Downing and Locke (2006) classified prepositions according to their appearances, in other words, their quantities: i) one-word prepositions (e.g. *about, by, down, for, from, to, with, etc.*), ii) two-word prepositions (as *of, apart from, because of, contrary to, due to* etc.) iii) three-word prepositions (e.g. *as far as, as well as, by means of, by way of, in charge of, in return for, in exchange for, with regard to* etc.), and iv) four-word prepositions *as a result of, at the expense of, on the part of, with the exception of, etc.*). According to Maclin (1996), prepositions can be classified into four types: i) prepositions of space and movement (e.g. *above, by, down, from, off, on, etc.*), ii) prepositions of time (e.g. *after, before, in, on, to, till, etc.*), iii) prepositions that show logical relationships (*of, out of, from, for, on, about, except, but, by, with, without, on account of, because of, owing to, due to, besides, together with, as well as, with, in addition to, in spite of, despite, like and as*)

iv) prepositions with adjectives and verbs (e.g. *absorbed in, bad at, fit for, keen on, accuse of, attend to, beg for, etc.*), and iv) participial prepositions (e.g. *barring, concerning, given, etc.*). In this present study, the types of prepositions in terms of i) space and movement, ii) time, iii) showing logical relationships, and iv) having participial use that the Turkish speakers (TSs) of English and the native speakers of English (NSs) used in the abstract and the introduction parts of their articles in the field of ELT were analyzed.

2.8.1. Preposition of Space and Movement

Dignen et al. (2007) described prepositions of space and movement as two different units in English grammar and noted that the former is used to note where something or someone is. According to them, this kind of prepositions may be used to express location, and they are *above, among, at, below, beside, between, in, near, on, and under*. For instance, “*Mary is watching television in her room.*”, “*I saw that advertisement on a magazine.*”, “*The personnel are at a meeting now.*”, etc. Furthermore, some of these prepositions have their own rules in terms of their use in English. For instance, *in* is used with a place with three dimensions (e.g. *in the kitchen*) the names of a town (e.g. *in Yenice*), a city (e.g. *in Ankara*), a country (e.g. *in Canada*); *on* refers to a position with a surface (e.g. *on the floor*), and *at* is used with buildings, places or activities (e.g. *at the meeting*) (Telli, 2007).

Prepositions of movement are language items that are used to indicate direction or where something or somebody to go (Dignen et al., 2007). They reported that there are various prepositions of movement including *across, along, down, into, off, out of, into, onto, to, and towards*. For instance, “*The children ran into the pool when they saw it.*”, “*We strolled down the street after dinner.*”, “*Little John walked towards his grandfather when he smiled at him.*” etc.

2.8.2. Prepositions of Time

Prepositions of time are used to talk about when something happens, happened or will happen (Anderson et al., 2007). According to them, these are *after, at, before, by, during, for, from...to..., in, on, and since* (e.g. “*The meeting is at 10 o'clock today.*”, “*I have not seen Tom since he left.*”, “*It heavily rained before dawn yesterday.*”, etc.). In addition, some of these prepositions are used in different situations, in other words,

each preposition applies its own rule. For example, “*in*” is used with parts of the day (e.g. *in the morning*), months (e.g. *in October*), seasons (e.g. *in winter*), years (e.g. *in 2016*), and centuries (e.g. *in the sixth century*); “*on*” is used with days (e.g. *on Friday*), dates (e.g. *on 3rd September*), and expressions including a day and a part of day together (e.g. *on Monday evening*), and “*at*” is used with a clock time (e.g. *at five o'clock*) and a time of the day (e.g. *at night*), and public holiday (e.g. *at Christmas*) (Telli, 2007).

2.8.3. Prepositions that Show Logical Relationship

Some language items that show logical relationship have different functions in terms of their meanings and they are sometimes addressed as linking words in the relevant literature (Evans, 2001). However, Maclin (1996) examined these words and phrases as prepositions and explained them in several categories. For example, “*of*” has a function of indicating content (e.g. *a basket of apple*) and material (e.g. *a basket of straw*); “*of*”, “*out of*” and “*from*” are used for showing origin and material (e.g. *a citizen of Germany*, *a table made from/out of/of oak*); “*except*” and “*but*” for omission (e.g. “*Everyone seems happy except/but John.*”); “*by*” and “*with*” are used for agent (e.g. *travel by plane*, “*Bill cooked the meal by himself.*”); “*without*” is used to show lack of an agent (e.g. “*I mended the car without any help.*”); “*on account of*”, “*because of*”, “*owing to*” and “*due to*” express a cause (e.g. “*Due to her age, Anna had to leave her job.*”); “*in spite of*” and “*despite*” indicate showing concession (e.g. “*Despite her anger, Mary was able to keep her feelings.*”) etc.

2.8.4. Participial Prepositions

Verbs that end with *-ing* and are used without any attached noun or pronoun but can be followed by them, or a noun clause can function as prepositions and are used for practical purposes (Pangestu, 2017). Examples of participial prepositions include *barring*, *including*, *excepting*, *following*, *respecting*, etc. as in “*Concerning John’s good behaviors, the school management decided to award him.*”, “*Assuming that Susan is new in the office, we sometimes ignore her mistakes.*”, etc. According to Maclin, this type of prepositions is most commonly used in business letters (Maclin, 1996).

Other prepositions occur in phrases having roles or functions different from their own meaning(s) such as transition markers or conjunctions, or parts of these linguistic items for example, *with regard to*, *in contrast to*, *on account of*, *in relation to*, *of course*,

at least, in no way, as follows, in order to, on behalf of, by no means, in terms of, in that, such as, on the other hand, in spite of, contrary to, in line with, for example, in other words, according to, etc. (Hewings, 2002); as a complement or a prefix of another word for example *in-service, knowing-in-action, hands-on, above-mentioned, near-expert, reflection-in-teaching, over-hearer, reflect-on, top-down, face-to-face, bottom-up, in-progress, off-the-peg, in-class, off-task, etc.*; with idiomatic meaning for example, *in conflict, at hand, in popularity, in effect, at ease, out of luck, on call, in collaboration, under arrest, at odds with, etc.* (Evans, 1997); and in phrasal verb patterns for example, *carry out, focus on, look into, set out, slow down, take into account, result in, refer to, depend on, write down, base on, keep up, deal with, run into, go on, etc.* (Eastwood, 2002)

2.9. Studies Conducted on Prepositions

Prepositions, with their different types, are one of the most frequently used language items; therefore, they are also one of the issues that have commonly been an important topic in ELT studies. There are a great many studies in the literature that described prepositions from various aspects. According to Feigenbaum and Kurzon (2002), prepositions were investigated from different angles e.g. syntactic, semantic, cross-linguistics, etc. Pullum and Huddleston (2002) claimed that prepositions have been investigated based on their syntactic functions. Fauconnier (1994) examined prepositions in terms of pragmatic approach, whereas Lakoff and Johnson (1980) investigated them from a cognitive point of view. Using the Lancaster-Oslo/Bergen (LOB) corpus and the Brown Corpus, Mindt and Weber (1989) examined prepositions in American and British English, and they listed the 14 most frequent prepositions. These prepositions accounted for approximately 90% of use in different patterns in the regarding corpora. Focusing on the results of this study carried out by Mindt and Weber (1989), Kennedy (1998) undertook studies on prepositions. These studies were essentially based on “when the high frequency and difficulty of acquisition of the English prepositional system is considered, it is somewhat surprising that there have not been more corpus-based studies of how the system is used” (1998, p. 139). Again, using the LOB, Kennedy (1991) presented results of prepositions specifically “*at*” and “*from*” and revealed that the prepositions have tendency to occur with particular words. In addition, the studies Kennedy carried out all exceeded the linguistic description of

prepositions, provided a statistical dimension based on frequency of collocations as well as functions of prepositions that were used in context.

However, there are studies in the literature that have mainly focused on types, meaning, uses, difficulty in learning prepositions, their syntactic functions, structural properties, grammatical features, and, most particularly, the errors made while using them. Takahashi (1969) reported that prepositions are one of the most difficult problems that learners of English as a second language encounter in understanding of their types, functions and uses. In addition, most learning is bound to memorization of prepositions and getting accustomed to the usage. He also noted that he was dissatisfied with the idea of the fact that correct understanding and usage of some prepositions requires intuitions. Instead, he argues that if that is so, then few who learn ESL can gain mastery of them.

In a study, Kilimci (2002) examined prepositions based on their functional and structural features in the articles prepared by Turkish English as a Foreign Language (EFL) learners who were at advanced level. He also compared the prepositions in these writings with those in the essays written by native speakers of American English (Kilimci, 2002 as cited in Koroğlu, 2018). Hamdallah and Tushyeh (1988) carried out a study in which they made a contrastive analysis of some prepositions in English and Arabic. They concluded that prepositions are a difficult subject for non-native speakers of English. Hamzah (2012) found that errors stemming from the types and use of prepositions constituted 12.31% of the general errors reported in the study.

There are studies that identifies acquisition patterns of different types of prepositions (Johnston & Slobin, 1979; Conner & Chapman, 1985; Tomasello, 1987), and those looking into how frequently prepositions were used in texts (Johnston & Slobin, 1979; Johnston, 1984) as well as those examining the frequency of errors resulting from the English prepositions (Durkin, 1981; Leikin, 1998; Abkarian, 1983). For example, in a study, in which 290 writings by English learners of native speakers of Spanish from different secondary schools were examined, Catalan (1996) investigated the frequency and variability of the errors related to English prepositions. The study found that the students had problems in substitution studies than they did in omission and addition studies and that prepositions in English is a difficult subject for Spanish learners of English.

Hashim (1996) conducted a study with Arab EFL students and examined the participants' syntactic problems. He found that most of the errors the learners made were based on syntax, including prepositions, and that their mother tongue was the main

factor for these errors. Similarly, as a result of their study in which they analyzed the difficulties that Arab EFL learners made, Kharma and Hajjaj (1997) reported that majority of the errors resulted from English syntax and prepositions. Suzanne (2017) investigated the errors which Indonesian EFL learners committed in using prepositions with a special focus on the prepositions “*at*”, “*in*” and “*on*”, in spoken English. The study showed that the participants made more mistakes in using “*at*” and “*in*” than they did in using “*on*”, and the errors included issues with substitution and omission of these prepositions. In addition, the learners’ first language influenced the occurrence of problems while speaking English. In a study, in which the data were obtained through descriptive and socio-linguistics methods, Saravanan (2014) investigated the writing skills of undergraduate school level students and analyzed the types of prepositions the students used. The results of the study showed that the participants had more difficulties in using prepositions expressing place and direction than they did in using prepositions expressing time. The study also made clear that mother tongue intervention was a factor for having difficulties and making mistakes with prepositions.

Özışık (2014) conducted a study with 30 Turkish undergraduate EFL learners enrolled in a preparatory school of a university to identify how they were successful in using prepositions in English, and to what extent Turkish, their native language, influenced their competence. The study showed that although the participants were at intermediate-level, they had difficulty in using the correct prepositions and majority of their errors resulted from mother tongue inference. In a study, Teneke (2017) examined preposition types by using five newspapers (The Guardian, National Mirror, This Day, Leadership, Daily Trust). He analyzed 45 prepositions in five articles from per newspaper, published between May 1st - 31st, 2016, and classified them according to their frequencies. He concluded that prepositions which expressed “source” and “purpose” occurred four times, preposition used for “tools or means” appeared five times; prepositions of “place” featured eight times and prepositions indicating “time” appeared nine times. The prepositions which functioned as conjunctions of transition markers appeared three times, and those used a part of prepositional phrase or in adverb group featured two times.

Izumi et al. (2003) applied a test of spoken English consisting of interviews to Japanese students, observed the transcripts, and identified three types of grammatical and lexical errors, one of which was related to prepositions. In his study, Abu Humeid (2013) highlighted the errors that Iraqi EFL University students made while they use

compound prepositions in English. Onike (2007) investigated how prepositions were used incorrectly by the learners of ESL. The study, which examined the observable errors stemming from types of prepositions, showed that the students most frequently made mistakes with the prepositions coming after adjectives. This was followed by the prepositions coming after verbs. Al Shormani (2012) conducted a study by investigating the compositions written in English by native speakers of Yemeni-Arabic in order to observe the causes of the learners' syntactic errors regarding prepositions. The result of the study showed that the errors were related to psychological strategies.

Fion (2005) carried out a study with EFL Chinese students and analyzed their acquisition of spatial prepositions in English (*at, in, on*). The study showed that the participants had problems with prepositions in terms of understanding the function and overlook of prepositions as well as learning idioms including prepositions. Introducing a new method for teaching prepositions, Boquist (2009) carried out a study on the acquisition of prepositions in English and reported that prepositions are difficult to be fully understood by the learners of ESL.

Kim (2001) conducted a study with Malay students to evaluate their mistakes in written texts and reported that the method of teaching English prepositions could play an important role for the learners in acquiring them. A study carried out by Ahmad (2011), in which he examined the essays written by eighth grade students, indicated that the secondary school students found learning prepositions of time really difficult and they were confused while they use prepositions in their writings. Habbash (1982) examined the occurrence of students' problems in the use of English prepositions and concluded that the errors with temporal prepositions were less frequent than those with spatial prepositions. Jalali and Shojaei (2012) examined the errors that Persian EFL learners committed. The data of the study were drawn from a total of 312 articles of undergraduates enrolled in department of English translation. The results of the study indicated 15 error types related to prepositions.

Sudhakaran (2008) performed a study with seven Malay ESL students from different faculties in International Islamic University. The study, in which the participants' use of prepositions was analyzed in speaking and listening skills, showed that errors of commission were more than those of omission. Akhtar et al. (2017) conducted a study to describe an approach to identify errors of prepositions that Pakistani ESL graduate students made in their writings. The researchers prepared a composition in which every fifth word was deleted. The main aim of the study was to

detect the participants' errors in writing, the results also showed that the students had overuse, omission and unnecessary insertion problems with prepositions.

In a corpus study, Mukundan (2009) analyzed English prepositions in terms of their distribution by types, frequency order and co-occurrence with other language items in three EFL textbooks which were used in secondary schools in Malaysia. The study showed that textbooks are valuable sources for teaching prepositions although there were differences between the textbooks in regard to their corpora, but there were both similarities and differences between them in terms of co-occurrence of prepositions with other items. In another study, prepositions were reported to be quite important for communication, and they played an important role although studying on prepositions systematically was scarcely examined in linguistics and methodology (Abdulkarim, 2008).

In a study, Pena (2009) analyzed the errors of students enrolled in science, math and engineering faculty in their written productions, and reported that prepositions were the second subject, followed by the tenses, which the students made most errors. Similarly, as a result of a study in which Mohaghegh et al. (2011) investigated grammatical problems that junior EFL students encountered, they reported that prepositions were the most significant language items that the students made the most errors. In the same study, prepositions were followed by relative pronouns, articles, and tenses. All these studies indicate that prepositions are an important subject that EFL learners generally have difficulty in fully understanding and internalizing.

CHAPTER III

3. METHODOLOGY

3.1. Introduction

This corpus-based study investigated the types of prepositions in the abstract and introduction sections of the articles in the field of ELT written by the Turkish speakers (TSs) of English and the native speakers of English (NSs). The prepositions in the abovementioned sections were analyzed in terms of their types, frequency and log-likelihood (LL) values by means of comparing the data groups. In the present study, i) prepositions of space and movement, ii) prepositions of time, iii) prepositions that show logical relationships, and iv) participial prepositions were analyzed. In addition, the study addressed the types of prepositions in terms of underuse and overuse values.

3.2. Research Questions

This study focuses on the answers of the following research questions:

1. What are the most salient preposition types in the academic articles written by the Turkish speakers (TSs) of English and the native speakers (NSs) of English in the field of ELT regarding the abstract section?
2. What are the most salient preposition types in the academic articles written by the Turkish speakers (TSs) of English and the native speakers (NSs) of English in the field of ELT regarding the introduction section?

3.3. Research Design

This study used a descriptive and quantitative research design. According to Hale (2012), description is one of the important aims of science, and descriptive research methods essentially relate situations. In addition, they do not make precise predictions and affect the relation between cause and effect. Jackson (2009) claimed that descriptive research is not technically a research method since it uses different independent approaches to collect data, each of which describes a current state of any situation. According to Jaggi (2003), descriptive statistics gives numerical and graphic applications and is used to summarize the data in an explicit and understandable way.

Descriptive research design not only involves data collection and arranging them, it also obtains facts about available position of things and this includes relationships and comparisons. Furthermore, it is equipped toward assigning meaning to and receiving useful data for effective data for further studies (Ololube, 2006).

Gay (1983) reported that descriptive research design includes data collection for the purpose of testing the hypothesis or find answers for the questions regarding the current study. Similarly, according to Chandran (2004), because descriptive research design portrays clear facts by means of collecting data to test hypotheses or answer questions to complete the study, it is among the best 21 methods used in carrying out studies regarding human context. Descriptive research design involves observation and description of the behavior of a subject, and it does not influence it in any way. In addition, this scientific method is also useful where measuring the large number of samples is needed for a study. In addition, it reflects the facts as they really are, namely, in case any other researchers go in the field, they will notice the situation as described before (Mugenda & Mugenda, 2003). In the present study, 100 articles written by the Turkish speakers of English (n=50) and the native speakers of English (n=50) were analyzed based on specific prepositions and compared their state of overuse and underuse, just reflecting the facts in the data obtained.

According to Hopkins (2008), by using specific techniques and methodologies, quantitative research aims to find the relationship between two things, one of which is an independent variable (predictor) and the other is a dependent variable (criterion), in other words the outcome in a study population. Quantitative research is a suitable method when variables or data that are going to be examined are clearly expressed and numerical data are available. Accordingly, Babbie and Mouton (2001) argued that it includes numerical representation and analyzing observations to describe and explain the outcome that those observations show. According to Cohen et al. (2000), quantitative research methods function under a “normative” approach, including two key ideas: “first, that ... behavior is essentially rule-governed; and second, that it should be investigated by the methods of natural science” (p. 22). Furthermore, it focuses on accurate measurement, objectivity, quantification of data, control, the experiment and presentation of results using statistical terms. Cresswell (2003) defined quantitative research as a scientific method that involves following a number of procedures including generation of models, determining hypothesis and theories, development of tools and methods to measure the data, controlling and/or analyzing, empirical data

collection and evaluation of results. Based on this point of view, quantitative research involves systematic and scientific examination of quantitative phenomena, and the relationships among them. Lan (2002) noted that quantitative research methods typically rely on a large quantity of randomized sample, statistical analysis and inferences and few interpretations.

Saunders et al. (2009) argued that quantitative research relies on various quantitative analysis methods that involve simple description of the variables, identifying statistical relationships among the variables using different statistical modelling. Looking at the phenomenon of quantitative research from another aspect, Cooper and Schindler (2006) noted that it makes use of standard research design in which the research focuses on describing, explaining and predicting phenomena. It also uses probability sampling and deals with larger sample sizes. According to Sekaran and Bougie (2010), quantitative research is dependent on deduction or deductive reasoning, which includes presentation of unknown particulars and those obtained from a set of known facts or resemblance (Rothchild, 2006). Regarding the points mentioned above, the present study included numerical items and calculations (frequency, corpus size calculations, percentage, etc.) to evaluate and compare specific types of prepositions based on the data.

3.4. Data Collection Procedure

The data for this study were drawn from the articles by the Turkish speakers of (TSs) of English and the native speakers (NSs) of English prepared in the field of ELT. The articles were obtained and reviewed through ScienceDirect, EBSCOhost and ProQuest databases, the Internet search engines and the authors' personal websites. The articles prepared by only one author, whether by the TSs or the NSs, were included in the study. Approvals from the TSs and confirmation to analyze preposition types the authors used were provided by sending each one of them permission letters through e-mails to their personal or institutional e-mail addresses.

The data included a total of 100 articles (50 by TSs and 50 by NSs) published between 2009 and 2018. For each year, five articles by the TSs and five by the NSs (10 in total) were compared based on the types of prepositions. Simple random sampling method was used for the selection of the articles which were prepared by a single author in the field of ELT to analyze and compare the types of prepositions. Using the articles

which were written by just one author made the process of obtaining the authors' consent easier.

The types of prepositions only in the abstract and introduction sections were analyzed because according to Orasan (2001), beyond being the mirror of a complete article, an abstract is written to draw attention to major points and summarize the study. In addition, an introduction section provides readers appealing glance of what is to come in the study; therefore, it captures the readers' attention by stimulating desire, interest, attention and action (Perry et al., 2013).

The articles were applied a corpus-based research to find out the most salient types of prepositions and compare them with each type of speakers. The study also included the frequency patterns of the prepositions which were classified according to their primary functions. All the articles obtained were in PDF format, so they were scanned, converted and saved as plain texts to make them compatible with the software programs and analyze the data effectively. Errors resulting from scanning procedure (repetitions, blurs, missing or faulty scanning etc.) were corrected. The articles included in the present study had been published by different publications and naturally they did not have the same printing formats; therefore, they were individually examined and arranged in order to obtain an optimum corpus size. Without considering their length, the abstract and introduction sections of the articles were excerpted and included as the data of the study; other parts of the texts were excluded.

3.5. Data Analysis Tools

The data were evaluated using installed or browser-based software programs such as Key Word in Context (KWIC) and log-likelihood (LL). Also, the frequency of occurrence of the prepositions in the regarding sections of articles was calculated.

3.5.1. KWIC Concordance

The term KWIC, an acronym for Key Word in Context, was first coined by Hans Peter Luhn and was based on a concept called *keyword in titles* which was first proposed for Manchester libraries in 1864. First used to constitute wordlists, KWIC is a useful and widely used technique in corpus processing to examine actual environments of particular words. Leech (1997) considered it as both the simplest and the most commonly used instrument that is used in corpus-based studies.

KWIC is a corpus analytical tool for preparing the lists of frequency of words, concordance line and collocation tables by using electronic files. It is similar to concordance where the target linguistic element under investigation is the central point of attention. A KWIC index is formed by sorting, arranging and aligning the words within an article title to allow each word to be alphabetically searchable. The word or words to be investigated seem at the center of each line and there is extra space on both sides. This program provides the capability of handling markup schemes, such as COCOA, SGML, the Helsinki Corpus, the Penn-Helsinki Parsed Corpus series, etc. Finally, KWIC helps to understand actual behaviors of words in contexts, the importance of context, role of associative words, actual environment of occurrence, and whether there are any contextual restrictions in the use of a specific word (Dash, 2010). In the present study, all the prepositions addressed were analyzed individually, and those which have more than one function (e.g. *in* occurred in both prepositions of space and movement and preposition of time, *on* was among the prepositions of space and movement, prepositions of time and prepositions that show logical relationships, etc.), in other words, that can occur in different types were specifically selected and calculated.

3.5.2. Log-likelihood Calculator

In general, the differences between frequencies of the language items in corpora possibly occur randomly or by chance and some tests are performed when it is needed to examine if these differences are statistically significant. One of these instruments used in frequency analysis is log-likelihood (LL) calculation statistical analysis method first used by R. A. Fisher, who is regarded as the founder of modern statistics, to analyze a case for using likelihood in the foundation of statistics. Sometimes called G score or G-square, LL is a tool used in collocation studies and frequency analysis to evaluate statistical significance, and it is similar to the Pearson's Chi-square measure. Simply used as "likelihood", log-likelihood function refers to a particular function of the parameter of a statistical model given data. This instrument plays a key role in statistical inference and is used to summarize the data's evidence about unknown parameters as well as to calculate frequencies of words and the corpus size, in general, log-likelihood values in specified texts (Lancaster University, n.d.)

Log-likelihood (LL) is an instrument used to evaluate the sizes of the corpora in which the target items are compared and to show the significance between frequencies, which also allows the researcher to assess overuse and underuse of linguistics items in a specific corpus. Also, if the results are found significant, it is possible to be certain that these results do not occur by chance. By using frequencies by per cent, the results can be compared in corpus studies, which is called *normalizing*. Normalizing allows researchers both to make comparisons between linguistic features and compare texts and corpora with differing sizes (Friginal & Hardy, 2014 as cited in Koroğlu, 2017). However, the scores that have been normalized do not always mean that the thing obtained is significant.

As an internet-based program, log-likelihood (LL) has a simple design and instructions to be easily followed where corpus 1 relative to corpus 2 can be compared in terms of effect size. For example, it is a chart with nine cells, four showing the calculations, and the symbols (+) and (-) indicate overuse and underuse, respectively. In examining the relevant literature, there are studies that used LL in the field of corpus linguistics including those conducted by Scott (2001) who used the program in a keywords practice and Rayson and Garside (2000) who used it for the purpose of comparing corpora by frequency profiling.

CHAPTER IV

4. RESULTS AND DISCUSSION

4.1. Introduction

This chapter demonstrates the results obtained from the analyses of two corpora: i) articles in the field of ELT written by the Turkish speakers (TSs) of English, and ii) articles in the field of ELT written by the Native speakers (NSs) of English. The present study aims to analyze the types of prepositions that the TSs of English and the NSs of English used in their articles in the field of ELT which were published between 2009-2018. In this context, a total of 100 articles (50 by TSs, and 50 by NSs) were evaluated to compare the types of prepositions and their frequency. The study used a descriptive research design and the data were evaluated quantitatively to identify the most salient preposition types in the abstract and introduction sections of the articles. The data obtained from the regarding sections of the articles were analyzed using Key Word in Context (KWIC), and frequency and log-likelihood (LL) analyses were conducted. Finally, the findings were presented in tables.

4.2. Results and Analyses

Data for this corpus-based study were collected from the abstract and introduction sections of the articles in the field of ELT written by the Turkish speakers (TSs) of English and the native speakers (NSs) of English. The data were analyzed to show the differences in terms of the types of prepositions and determine the most salient types of prepositions. In the study, TSA refers to abstract section and TSI refers to the introduction section of the articles written by the Turkish speakers. Similarly, NSA and NSI refer to the abstract and introduction sections of the articles written by the native speakers, respectively. Based on the normalization process, researchers might wish to evaluate the number of occurrences per 100, 1,000, 10,000 etc. In the present study, the types of prepositions were analyzed according to their recurrence per 1,000 words, which could indicate more explicit opinion of possible differences in each group's total preposition frequency. Table 1 shows the overall frequency and the LL analysis of the preposition types of the articles in the field of ELT written by the TSs of English and the NSs of English.

Table 1.

Overall Frequency and LL Analysis of the Preposition Types of the Articles in the Field of ELT Written by the TSs of English and the NSs of English

Types		TSs	NSs	LL Value
	Corpus Size	312,376	274,685	
Space and Movement	Prepositions (n)	3,534	2,674	
	n per 1,000	11	10	+34.58*
	Frequency (%)	0.11	0.10	
Time	Prepositions (n)	610	224	
	n per 1,000	2	0.8	+139.46*
	Frequency (%)	0.02	0.01	
Showing Logical Relationships	Prepositions (n)	5,842	4,645	
	n per 1,000	19	17	+26.33*
	Frequency (%)	0.19	0.17	
Participial	Prepositions (n)	45	17	
	n per 1,000	0.14	0.05	+9.77*
	Frequency (%)	0.00	0.00	

n= frequency of preposition types

Frequency= percentage of prepositions in total of words in groups

+ indicates overuse of prepositions in TSs of English relative to NSs of English

- indicates underuse of prepositions in TSs of English relative to NSs of English

Based on the values in Table 1, there was a difference between the TSs (n=312,376) and NSs (n=274,685) in terms of their corpus size. Among all the types of the prepositions analyzed in the study, the total number of the prepositions that show logical relationships in the abstract and introduction sections in the articles in the field of ELT written by the TSs was 5,842 whereas it was 4,645 for the NSs of English. This indicated that the usage of prepositions that show logical relationships in both sections in the articles for the TSs was higher compared to those of the NSs. In parallel with this result, the rate of the prepositions that show logical relationships was the highest in the TSs in terms of per 1,000 words. Considering the frequency results by means of per 100 words, the TSs and the NSs used different amounts of prepositions for all the types of prepositions included in the study in both sections.

Following the prepositions that show logical relationships, the amount of the prepositions of space and movement was the highest for both the TSs (n=3,534) and the NSs (n=2,674) in the abstract and introduction sections of the articles. The proportions

of per 1,000 words (the TSs=11 and the NSs=10) and frequencies (the TSs=0.11 and the NSs=0.10) of the prepositions of space and movement were slightly similar.

There was a difference between the TSs and NSs related to the usage of the prepositions of time in the regarding sections of the study. The number of the prepositions of time used by the TSs (n=610) was higher than that of the NSs (n=224). The proportions of per 1,000 words differed significantly, and it was higher (2) in the abstract and introduction sections in the articles written by the TSs. Accordingly, the rate of frequency (0.02) was higher in both sections written by the TSs.

Of all the preposition types, participial prepositions were used the least by both the TSs (n=45) and the NSs (n=17). Although the proportion of per 1,000 words was different for both groups of writers (0.14 for the TSs and 0.05 for the NSs), the rate of frequency was the same (0.00).

In addition to the overall frequency analysis, log-likelihood (LL) calculation was performed for the general evaluation of the data. The LL value of the preposition types in the abstract and introduction sections of the articles between the TSs of English and the NSs of English showed a statistically significant overuse. Besides, the most significant overuse was obtained from the use of prepositions of time (+139.46); on the other hand, the least LL value was found in the participial prepositions (+9.77). The difference between the types of prepositions was also compared through analyzing their frequencies individually for the abstract and introduction sections.

4.2.1. Frequency Analysis of the Preposition Types for the Abstract sections of the Articles in the Field of ELT Written by the Turkish Speakers of English and the Native Speakers of English

The frequency analysis of the preposition types for the abstract section in the articles in the field of ELT written by the Turkish speakers (TSs) of English and the native speakers (NSs) of English was compared. The results were shown in Table 2.

Table 2.

Frequency Analysis of the Preposition Types for the Abstract Sections of the Articles in the Field of ELT Written by the TSs of English and the NSs of English

Types	TSs			NSs			Overuse/Underuse + / -
	n	%	n/1,000	n	%	n/1,000	
Space and Movement	437	26.6	1	310	32.9	1	+0.0
Time	389	23.7	1	42	4.5	0	+1.0
Showing Logical Relationships	809	49.3	3	589	62.5	2	+1.0
Participial	6	0.4	0.0	2	0.2	0.0	+0.0

n= frequency of preposition types

%= percentage of preposition types in total of words in groups

n/1,000= frequency of preposition types per 1,000 words

(- / +)= difference between relevant value and value in TSs of English preposition types per 1,000 words

+ indicates overuse of preposition types in TSs of English relative to NSs of English

- indicates underuse of preposition types in TSs of English relative to NSs of English

According to Table 2, the most frequent type of prepositions used in the abstract sections of the articles in the field of ELT written by the TSs (n=809) and the NSs (n=589) was the prepositions that show logical relationships. In the abstract section of the articles, prepositions that show logical relationship made up 49.3% for the TSs and 62.5% for the NSs of all the preposition types. Prepositions of space and movement was the second highest preposition type in the abstract sections of the articles written by the TSs (n=437) with a percentage of 26.6% and the NSs (n=310) with a percentage of 32.9%. There was a significant difference between the numbers of the prepositions of time that the TSs (n=389 [23.7%]) and the NSs (n=42 [4.5%]) used in the abstract sections of the articles. Participial prepositions were least in number among all the preposition types used in the abstract sections, and it was three times higher in the articles written by the TSs (n=6) compared to those written by the NSs (n=2). The rate of frequency of participial prepositions in the abstract sections of the articles written by the TSs (0.4) was higher than those written by the NSs (0.2); however, the percentage of the participial prepositions per 1,000 words was the same in both groups of writers (0.0). Below are the examples of preposition types used by the TSs and the NSs in the abstract sections of the articles.

Example 1

[Using method and time triangulation, the data **in** this case study of longitudinal design were collected by means of 423 trainee questionnaires and 6 teacher interviews over a **period of** three years.]

Extracted from <TSA-7>

[**At** the end of the academic term, the trainees were asked to construct a metaphor again.]

Extracted from <TSA-3>

[English language teacher **from** the perspectives **of** the participants, whether or not in-service teachers are found to be effective **from** the perspective **of** prospective teachers, and how in-service teachers evaluate themselves **as** effective teachers.]

Extracted from <TSA-6>

[The main aim was to represent the views of the second graders **regarding** their motivation and attitudes toward learning English and their perceptions **concerning** English language learning and instruction.]

Extracted from <TSA-44>

[Few studies have explored identity representation **in** language **across** two written cultures, such as English and Spanish, although Spanish might be a language of interest for non-native speakers due to its international dynamism.]

Extracted from <NSA-3>

[Educationalist Fred Korthagen elaborated a model **in** the 1980s for the relationship between the teacher educator and the teacher which embraces reflective practice as its guiding principle.]

Extracted from <NSA-13>

[Drawing on the content **of** a range of coursebooks over a period **of** 40 years, the author attempts to show how the ideological positioning **of** ELT coursebooks has evolved and also what this may tell us **about** the role **of** ELT in the political economy **of** neoliberalism.]

Extracted from <NSA-43>

[Analysis of pre- and post-intervention comprehension tests and samples of notes suggests that the sequence has positive effects, particularly **regarding** the quantity of notes recorded.]

Extracted from <NSA-49>

Regarding the frequencies of the preposition types in the abstract section of the articles, the results showed that all the types of prepositions were overused by the TSs in the abstract sections of the articles in the field of ELT. In addition, the most frequently used preposition that show logical relationship was “*of*” in the abstract sections of the articles written by TSs (n=445) and the NSs (n=332). A great variety of prepositions that show logical relationships such as “*for*”, “*as*”, “*by*” had been used in the abstract sections of the articles by the TSs and the NSs, and this could be explanation of why the rate of this type of preposition was high.

To support the overuse/underuse scores resulting from the variation of frequency per 1,000 words, the values were calculated in server-based LL software program. The LL frequency of preposition types in the abstract section of the articles written by the TSs of English and the NSs of English was presented in Table 3.

Table 3.

LL Frequency of Preposition Types for the Abstract Sections of the Articles in the Field of ELT Written by the TSs of English and the NSs of English

Types	TSs n	NSs n	LL Frequency
Space and Movement	437	310	+8.45*
Time	389	42	+279.30*
Showing Logical Relationships	809	589	+12.25*
Participial	6	4	+1.61*

n= frequency of preposition types

+ indicates overuse of preposition types in TSs of English relative to NSs of English

- indicates underuse of preposition types in TSs of English relative to NSs of English

As indicated in Table 3, the LL values of the preposition types that the TSs of English used in the abstract sections of the articles revealed an overuse, and they differed significantly in all types of prepositions. The highest overuse value was in the

prepositions of time with the LL value of +279.30, which could have resulted from the significantly higher number of prepositions of time used by the TSs of English (n=389) than those that were used by the NSs (n=42). This was followed by the prepositions that show logical relationships (+12.25) and prepositions of space and movement (+8.45). The least difference observed in terms of overuse was in the participial prepositions in the abstract sections of the articles with an LL frequency value of +1.61. The following sentences, extracted from the articles, include the preposition types that the TSs and the NSs had used in the abstract sections of the articles.

Example 2

[This article examines the adjustment of Turkey’s language policy in response to the global influence of English **at** different levels of Turkish national education, including its role **in** Turkish academia, as an indication of the status that English holds **in** the country by investigating the macro policy changes in connection with micro level implementations based on available research, official documents, and curriculum documents.]

Extracted from <TSA-5>

[In the study, fifty senior pre-service students completed a self-perception questionnaire, and nine of them received training on sentential stress patterns in English **for** four weeks.]

Extracted from <TSA-24>

[Higher Education Council **of** Turkey has added a one term course named **as** “Effective Communication Skills” to the curriculum **since** 2006 **in** Foreign Language Education Departments **because of** the crucial importance **of** communication **in** the information society.]

Extracted from <TSA-2>

[Accordingly, this action research project was designed to explore the perceptions of graduate students **concerning** the use of an online discussion board, focusing on whether the character of the interactions evidenced in the content of the discussion was reflected in the participants’ views of their experiences.]

Extracted from <TSA-35>

[The results showed that while ICT is making massive inroads **into** language classrooms **in** technologically advantaged countries like Sweden, the coursebook package still has its place assured among trainee teachers, at least for the immediate future.]

Extracted from <NSA-17>

[The attempt is therefore made to characterize developments **since** 1995 at this level as well, by comparing earlier and more recent editions of a unit from a widely-used International ELT coursebook.]

Extracted from <NSA-16>

[They claimed that writing **by** hand is fundamentally different from writing on a keyboard, and that handwriting has much greater impact **as** a tool for learning.]

Extracted from <NSA-34>

[Increasingly cited in recent critiques, the concept of ‘translanguaging’ was born in the classroom and has now moved out into society and, as a starting point at least, may provide useful information for foreign-language educators **regarding** bilingual learning and behavior.]

Extracted from <NSA-44>

Findings in Table 3 showed that the numbers of the prepositions for each type i.e. prepositions of space and movement, prepositions of time, prepositions that show logical relationships, and participial prepositions were higher in the abstract sections of the articles written by TSs than those written by NSs in the same section. Accordingly, there was a significant difference between all the types except prepositions of time that the TSs and NSs used in the abstract sections of the articles. Specifically, there was a quite significant difference between the frequency of the preposition “*in*” for expressing time. While the frequency of “*in*” was 259 in the abstract section of the articles written by TSs, it was 8, which was significantly low in the same section of the articles written by the NSs.

The frequency of the prepositions, analyzed in the study according to their types in the abstract sections of the articles written by the Turkish speakers (TSs) of English, was examined to indicate the distribution of the prepositions in each type. The results were indicated in Table 4.

Table 4.

The Frequency of the Prepositions According to Their Types in the Abstract Sections of the Articles Written by the Turkish Speakers of English

Prepositions of Space and Movement	Prepositions of Time		Prepositions that Show Logical Relationships				Participial Prepositions				
	n	%	n	%	n	%	n	%			
across	2	0.5	after	4	1.0	about	22	2.7	Concerning	2	33.3
against	2	0.5	at	28	7.2	as	46	5.7	Regarding	4	66.7
along	1	0.2	before	3	0.8	as well as	7	0.9	Total	6	
among	4	0.9	during	15	3.9	because of	3	0.4			
around	1	0.2	for	1	0.3	besides	1	0.1			
as far as	2	0.5	in	259	66.6	by	37	4.6			
at	18	4.1	on	74	19.0	due to	4	0.5			
before	1	0.2	prior to	2	0.5	except	1	0.1			
behind	2	0.5	since	1	0.3	for	69	8.5			
between	24	5.5	upon	2	0.5	from	34	4.2			
far from	1	0.2	Total	389		in spite of	3	0.4			
in	240	54.9				like	2	0.2			
into	19	4.3				of	445	55.0			
on	13	3.0				on	59	7.3			
through	19	4.3				owing to	1	0.1			
throughout	5	1.1				with	74	9.1			
to	69	15.8				without	1	0.1			
toward(s)	10	2.3				Total	809				
under	4	0.9									
Total	437										

n= frequency of the preposition

%= percentage of the preposition in total of words in groups

As shown in Table 4, the most frequently used type of prepositions was those that show logical relationships (n=809). This was followed by the prepositions of space and movement (n=437) and prepositions of time (n=389). Participial prepositions were the least in number (n=6). Of all the prepositions, the most frequently used preposition was “*of*” (n=445), which was among the prepositions that show logical relationships, with a frequency of 55%. The use of the preposition of “*of*” could be a factor for the high percentage of the prepositions that show logical relationships. Among the prepositions that show logical relationships “*with*” (n=74), whose meaning of “indicating an agent” was used in the present study, was followed by “*of*” with a

frequency of 9.1%. The preposition “*on*” (n=59) referred to the meaning of “*about*” within the context of showing logical relationships but its percentage (7.3%) was higher than that of the preposition “*about*” (2.7%) in the abstract sections of the articles written by the TSs. Of the prepositions of time and a prepositions of space and movement, “*in*” was most frequently used by the TSs of English in the abstract sections of the articles (n=259 for prepositions of time, n=240 for prepositions of space and movement). Although participial prepositions in the abstract sections of the articles, “*concerning*” and “*regarding*”, were low in number in total (n=6), there were prepositions in other types that were lower such as “*against*” (n=2), “*upon*” (n=2), “*in spite of*” (n=2), “*behind*” (n=2), etc. In the group of the prepositions that show logical relationships, “*besides*”, “*except*”, “*owing to*”, and “*without*”; among the prepositions of time, “*for*”, and “*since*”, and in the group of prepositions of space and movement, “*along*”, “*around*”, “*before*” and “*far from*” were the least in number (n=1). The scarcity of these prepositions could have resulted from the fact that the authors could only give concise information about their studies as there could be word count limitations in the abstract sections of the publications, which also could limit the length or quantity of sentences, they had published their articles.

Example 3

[Therefore, there has been a great deal of improvement **in** curriculum development **in** this field and the application **of** findings **of** ESP researchers continues to increase and expand throughout the world.]

Extracted from <TSA-1>

[Therefore, the aim **of** this study is to investigate teachers’ and EFL learners’ perspectives **on** understanding **of** ‘culture’; attitudes **towards** culture teaching; the cultural topics they favor to teach/learn **in** the classroom; time allocation **to** culture teaching/learning and finally their attitudes **towards** intercultural communicative competence.]

Extracted from <TSA-36>

[Students read the texts given and wrote what they remembered **about** the text **on** a separate answer sheet.]

Extracted from <TSA-21>

[Some **of** the problematic and confusing tenses such as Past Simple and Present Perfect Tense, Present Continuous and Present Simple, Past Simple and Past Continuous Tense Teaching grammar have been handled **throughout** this study **with** the data obtained **from** the written exams **of** the learners.]

Extracted from <TSA-11>

[This article examines the adjustment **of** Turkey's language policy in response to the global influence **of** English **at** different levels **of** Turkish national education, including its role **in** Turkish academia, **as** an indication **of** the status that English holds **in** the country **by** investigating the macro policy changes in connection with micro level implementations based on available research, official documents, and curriculum documents.]

Extracted from <TSA-5>

[Correspondingly, this study reports **on** the EFL teachers' beliefs **about** and their conceptualizations **of** grammar instruction **in** teaching English and compares how novice and experienced teachers perceive grammar instruction, examining whether there is a significant difference **in** their perceptions.]

Extracted from <TSA-50>

[Third, multilingual learners' interest in learning other languages and willingness **to** integrate **in** the target language culture, the status quo **of** the target language **in** the global world and the level **of** unfamiliarity **of** the target language seem to play a role **in** the learners' beliefs **of** motivation, feeling **in** learning additional languages and intention to study languages.]

Extracted from <TSA-46>

[This paper aims to display English language teachers' classroom activities, perception **of** competence **about** these activities and professional development needs.]

Extracted from <TSA-22>

Frequency of the prepositions were analyzed according to their types in the abstract sections of the articles by the native speakers (NSs) of English to present the distribution of the prepositions in each type. The results were indicated in Table 5.

Table 5.

The Frequency of the Prepositions According to Their Types in the Abstract Sections of the Articles Written by the Native Speakers of English

Prepositions of Space and Movement	Prepositions of Time		Prepositions that Show Logical Relationships				Participial Prepositions				
	n	%	n	%	n	%	n	%			
across	6	1.9	after	2	4.8	about	14	2.4	regarding	2	100
alongside	1	0.3	at	2	4.8	as	58	9.8	Total	2	
among	4	1.3	before	3	7.1	as well as	5	0.8			
around	1	0.3	during	20	47.6	because of	2	0.3			
at	12	3.9	for	3	7.1	by	24	4.1			
between	13	4.2	in	8	19.0	despite	2	0.3			
beyond	4	1.3	since	3	7.1	due to	3	0.5			
in	199	64.2	upon	1	2.4	for	60	10.2			
into	16	5.2	Total	42		from	28	4.8			
through	15	4.8				in addition to	1	0.2			
to	25	8.1				like	2	0.3			
toward(s)	4	1.3				of	332	56.4			
under	4	1.3				on	28	4.8			
Total	310					out of	1	0.2			
						together with	1	0.2			
						with	28	4.8			
						Total	589				

n= frequency of the preposition

%= percentage of the preposition in total of words in groups

In Table 5, the prepositions that show logical relationships were the most frequently used type of prepositions in the abstract sections of the articles written by the NSs though its number was lower (n=589) compared to that of the TSs (n=809). Again, among these prepositions, “*of*” was the one with the highest frequency (n=332) and proportion (56.4%). Different from the abstract sections of the articles by TSs, “*for*” (n=60), which was used for expressing purpose, was the second most frequently used preposition in this type. The total number of prepositions of space and movement in the abstract sections of the articles by the NSs (n=310) was lower than that of the TSs (n=437). This difference between the TSs and the NSs could be attributed to the sizes of the abstract sections in the corpora, which was higher in the articles written by the TSs (n=9,149) than those of the NSs (n=7,537). The preposition “*in*” (n=199) among the prepositions of space and movement was the most frequent with a proportion of 64.2%.

However, its frequency was significantly lower (n=8) in the circumstance when it was used as a preposition of time. In the group of prepositions of space and movement, “*alongside*” and “*around*”; of the prepositions of time, “*upon*”, and among the prepositions that show logical relationships “*in addition to*,” and “*together with*” were the lowest in number (n=1). The low of numbers observed in the regarding sections of articles written by the NSs could be related to the content of the study.

Example 4

[Narrative is proposed **as** a register that can be used effectively to teach the basics **of** English intonation, **with** a suggested method.]

Extracted from <NSA-5>

[Casual style as one **of** the language variations gives contribution **in** increasing students’ motivation to be more active **in** the class.]

Extracted from <NSA-21>

[There is a broad consensus of opinion **about** its importance **for** raising learners’ language awareness, but Chinese and Singaporean teachers generally had different attitudes **to** native speaker norms, while opinions **on** some pedagogical issues vary more **at** the individual level.]

Extracted from <NSA-1>

[I argue that such a monolithic view is inconsistent with the diversity of Englishes attestable **across** both native and non-native users and uses, and that this undermines the inclusion **of** accuracy criteria **in** English language tests.]

Extracted from <NSA-27>

[The face-to-face nature **of** the academic presentation directs attention **to** the interpersonal dimension involved **in** the speaker persuading the audience **of** the value **of** their design.]

Extracted from <NSA-4>

[Reflection and behavior change were found **in** the group, and Korthagen's model **for** describing teacher knowledge, integrating gestalts, schematization, and theory building proved to be most useful **in** explaining the results obtained.]

Extracted from <NSA-13>

[The results showed that students' approaches **to** correction varied widely **from** single corrections **to** complete reformulations, and that students were able to make gains with a variety of forms, appearing more likely to use their own corrections than those **of** the teacher.]

Extracted from <NSA-20>

[Thousands **of** ELT professionals attend conferences **around** the world each year and such activity is assumed to make a positive contribution **to** these individuals' professional development and work.]

Extracted from <NSA-30>

4.2.2. Frequency Analysis of the Preposition Types for the Introduction Sections of the Articles in the Field of ELT Written by the Turkish Speakers of English and the Native Speakers of English

Frequency analysis of the preposition types in the introduction sections of the articles in the field of ELT written by the Turkish speakers (TSs) of English and the native speakers (NSs) of English was conducted. The findings were indicated in Table 6.

Table 6.

Frequency Analysis of the Preposition Types for the Introduction Sections of the Articles in the Field of ELT Written by the TSs of English and the NSs of English

Types	TSs			NSs			Overuse/Underuse + / -
	n	%	n/1,000	n	%	n/1,000	
Space and Movement	3,097	36.9	10	2,364	35.7	9	+1.0
Time	221	2.6	1	182	2.8	1	+0.0
Showing	5,033	60.0	16	4,056	61.3	15	+1.0
Logical Relationships							
Participial	39	0.5	0.1	13	0.2	0.0	+0.1

n= frequency of preposition types

%= percentage of preposition types in total of words in groups

n/1,000= frequency of preposition types per 1,000 words

(- / +)= difference between relevant value and value in TSs of English preposition types per 1,000 words

+ indicates overuse of preposition types in TSs of English relative to NSs of English

- indicates underuse of preposition types in TSs of English relative to NSs of English

According to Table 6, the most frequently used preposition type was the prepositions that show logical relationships (n=5,033) and they composed the 60.0% of all the types in the introduction section of the articles written by the TSs. Similarly, the most frequently used prepositions in the introduction section of the articles written by the NSs were those that show logical relationships (n=4,056) with the rate of 61.3%. Moreover, the NSs had the highest percentage (61.3%) between the preposition types in the introduction sections of the articles.

The frequency of the prepositions that show logical relationships per 1,000 words in the introduction sections of the articles written by the TSs was 16 and it was 15 for those written by the NSs. The difference between the TSs and NSs was 1 indicating that the prepositions that show logical relationships had been used more in the introduction sections of the articles written by the TSs of English than those of the NSs of English. In addition, in comparing the frequencies per preposition types, it was found that all the types of prepositions included in the study were overused by the TSs in the introduction sections of the articles.

Prepositions of space and movement were the second highest type that the TSs (n=3,097) and the NSs (n=2,364) used in the introduction sections of the articles. Furthermore, the rates of frequency were quite similar, which were 36.9% for the TSs

and 35.7% for the NSs. The difference (1) between the rates of per 1,000 words indicated that this type of preposition was also overused by the TSs.

Prepositions of time and participial prepositions were those that were used the least by the TSs (n=221) and the NSs (n=182) in the introduction sections of the articles. Although the proportions of per 1,000 words were the same (1), there was a slight difference between their rates of frequency between the TSs (0.5) and the NSs (0.2). The sentences below are the examples taken from the corpora including the types of prepositions that were used by the TSs and the NSs in the introduction sections of the articles. Here, TSI refers to the introduction section of the articles written by the TSs, and the NSI refers to the introduction section of the articles written by the NSs.

Example 5

[This aspect gains more importance for EFL contexts, where the instrumental - integrative dichotomy, reviewed **above**, is absent by nature and where all language learners have instrumental motivation, yet, only some persist **in** learning the language.]

Extracted from <TSI-4>

[Wang et al. (2009) discussed an ongoing research collaboration between an American university and a Chinese university, which investigated the infusion of SL into a program of teaching English as a foreign language **during** two semesters in China.]

Extracted from <TSI-18>

[The ecology paradigm, on the other hand, is concerned with reactions against the global hegemony **of** English and the imposition **of** Anglo-American cultural values and norms through English. It is grounded in the concern to preserve national identity in international communication, and assumes that language is culture and a source **of** personal identity that influences and shapes individuals.]

Extracted from <TSI-29>

[**Regarding** the benefits of learning about culture, attending the culture class has raised cultural awareness and benefitted learning about culture **concerning** both native and target societies.]

Extracted from <TSI-36>

[Despite these calls for a balanced view of learner L1 use, the reality remains that even **in** many of today's most sophisticated learning centers, 'English only' wall signs can be found **alongside** the interactive whiteboards, and systems of forfeits for 'rule breakers' form part of everyday class routines.]

Extracted from <NSI-11>

[As the child instructs their parent: 'Mr. Jones says I must wash my hands **before** lunch' or 'Miss Smith says I must work hard if I want to be an astronaut when I'm older', it is evident how attitudes are shaped and children become accustomed to trusting the expertise of someone outside the immediate family grouping in matters of education.]

Extracted from <NSI-28>

[But **despite** their typological similarity to the kinds of forms found in native English, these NNES-led innovations tend to be regarded in ELT **as** errors until/ unless they are eventually 'sanctioned' **by** NES use.]

Extracted from <NSI-17>

[**Considering** the realities of a class of L2 readers, it may be more appropriate, however, to employ the role sheets, at least for an extended period in the first or first several reading cycles, as they provide an important source of effective scaffolding for learners.]

Extracted from <NSI-14>

The preposition type that was frequently overused in the introduction sections of the articles written by the TSs and the NSs was prepositions that show logical relationships. All the types of the prepositions included in the study were overused by the TSs. The excessive use of some specific prepositions (e.g. *of*, *for*, *from*, etc.) that show logical relationships could explain why the number of prepositions that show relationship was the highest. For instance, the preposition "*of*" (for expressing relationship between a part or parts; or origin, material and content) was found to have been used 2,795 times by the TSs and 2,322 times by the NSs.

In addition, LL calculation was performed to verify the overuse/underuse situation between the TSs and the NSs in terms of the preposition types they used in the

introduction sections of the articles. This was obtained by the differences of frequency values per 1,000 words. Table 7 illustrates the LL frequency of preposition types in the introduction sections of articles written by the TSs and the NSs.

Table 7.

LL Frequency of Preposition Types for the Introduction Sections of the Articles in the Field of ELT Written by the TSs of English and the NSs of English

Types	TSs	NSs	LL Frequency
	n	n	
Space and Movement	3,097	2,364	+26.99*
Time	221	182	+0.43*
Showing Logical Relationships	5,033	4,056	+17.14*
Participial	39	13	+10.48*

n= frequency of preposition types

+ overuse of preposition types in TSs of English relative to NSs of English

- underuse of preposition types in TSs of English relative to NSs of English

As indicated in Table 7, the results of LL calculation showed that all types of prepositions that the TSs used in the introduction section of their articles had been overused with a significant difference. The most significant difference was between the prepositions of space and movement (+26.99). In addition, the LL values differed per type of preposition such as +17.14 for the prepositions that show logical relationships and +0.43 for prepositions of time. Although the quantity of the participial prepositions was low in number for the TSs (n=39) and the NSs (n=13), this type of prepositions also showed an overuse for the TSs with a score of +10.48. The extracts drawn from each corpus were presented in Example 6 below.

Example 6

[The “English Language Teaching Textbook Checklist” (Mukundan & Nimehchisalem, 2012) was used as the instrument of the research to obtain data **throughout** the study.]

Extracted from <TSI-40>

[According to the managers, teachers often find the job very demanding and leave **after** teaching **for** a few weeks.]

Extracted from <TSI-13>

[Kuo and Simon's analysis brings several advantages into surface, but **in addition to** those advantages there are also a number **of** disadvantages and pre-requisites being discussed.]

Extracted from <TSI-42>

[This finding is an indicative of the fact that many different confounding variables may get involved in language learning atmosphere **concerning** FLA.]

Extracted from <TSI-33>

[If an institution wishes to become a center of international excellence, it needs both to attract teachers and researchers from **around** the world, and to encourage international students to enroll on its courses, enriching the university's prestige, revenue, and intellectual climate.]

Extracted from <NSI-6>

[It is notable that the *ELT Journal* review article for Byrne's book did not appear **until** 1980 (Brookes 35/1: 71-2, 1980) and did not mention PPP itself.]

Extracted from <NSI-36>

[This prompts John to produce an indirect rather than a direct invitation, using the past continuous tense *and just* as softeners, 'Oh, I was just gonna say come out', in line 4 and to add, 'but if you're going out you can't very well do that' in order to give Judy the possibility **of** refusing the invitation **without** a loss of face for either interlocutor.]

Extracted from <NSI-31>

[For, though there is limited evidence available in this specific field, research conducted in an American context has suggested that (a) foreign language teachers' practices **regarding** reading skills' development tend to reflect their beliefs in the same area (Graden, 1996, as cited in Borg, 2006), and (b) such beliefs are open to change when a constructivist view of teaching reading is promoted (Grisham, 2000).]

Extracted from <NSI-18>

The frequency of the prepositions, analyzed in the study according to their types in the introduction sections of the articles by the Turkish speakers (TSs) of English, was examined to show the distribution of the prepositions in each type. The results were shown in Table 8.

Table 8.

Frequency of Prepositions According to Their Types in the Introduction Sections of the Articles Written by the Turkish Speakers of English

Prepositions of Space and Movement		Prepositions of Time		Prepositions that Show Logical Relationships		Participial Prepositions					
n	%	n	%	n	%	n	%				
above	19	0.6	after	24	10.9	about	155	3.1	concerning	19	48.7
across	5	0.2	at	27	12.2	as	381	7.6	considering	18	46.2
against	9	0.3	before	16	7.2	as well as	30	0.6	excepting	1	2.6
along	8	0.3	during	42	19.0	because of	9	0.2	regarding	1	2.6
alongside	3	0.1	for	9	4.1	besides	14	0.3	Total	39	
among	56	1.8	in	72	32.6	by	298	5.9			
around	18	0.6	on	4	1.8	despite	19	0.4			
at	103	3.3	prior to	4	1.8	due to	28	0.6			
behind	7	0.2	since	11	5.0	for	495	9.8			
below	9	0.3	till	4	1.8	from	208	4.1			
between	172	5.6	until	8	3.6	in addition to	4	0.1			
beyond	8	0.3	Total	221		in spite of	3	0.1			
from	169	5.5				like	27	0.5			
in	1,596	51.5				of	2,795	55.5			
in front of	8	0.3				on	127	2.5			
in the middle of	2	0.1				out of	4	0.1			
into	56	1.8				together with	3	0.1			
on	242	7.8				with	410	8.1			
opposite	3	0.1				without	17	0.3			
out of	5	0.2				Total	5,033				
outside	4	0.1									
over	26	0.8									
through	71	2.3									
throughout	2	0.1									
to	420	13.6									
toward(s)	46	1.5									
under	20	0.6									
up	5	0.2									
Total	3,097										

n= frequency of the preposition

%= percentage of the preposition in total of words in groups

In Table 8, the most noticeable prepositions in terms of their frequency were those that show logical relationships in the introduction section of the articles written by the TSs (n=5,033). This was followed by prepositions of space and movement (n=3,097), prepositions of time (n=221) and participial prepositions (n=39). Among the prepositions in the group that show logical relationships, “*of*” was the most frequently used (n=2,795) with a proportion of 55.6%. “*For*” (n=495) and “*with*” (n=410) were the two most frequently used prepositions in this type of prepositions. Among the prepositions of space and movement, “*in*” (n=1,596) was used most with a significant difference compared to other prepositions in this type of prepositions. Of the participial prepositions, “*excepting*” and “*regarding*” were the least in number (n=1) in the introduction sections of the articles written by the TSs. Examples of the prepositions used by the TSs in the introduction section were presented below.

Example 7

[These beliefs play important roles **in** determining the effectiveness **of** classroom environment where the congruency **between** learners’ and their teachers’ beliefs affects the quality **of** teaching procedure because it might not be probable to expect learners to be motivated **in** a learning process which mismatches their beliefs.]

Extracted from <TSA-12>

[All these evidences paved the way **to** investigate the level **of** anxiety they feel and the underlying reasons behind such kind **of** negative feelings **towards** writing tasks.]

Extracted from <TSA-23>

[For instance, **in** Singapore EFL teaching context, Farrell’s (2008) study **of** a first-year English language teacher revealed that the teacher did not abandon his beliefs, even though they were not applicable **in** his teaching context, and tried to find a balance **between** his beliefs and the institution’s expectations.]

Extracted from <TSA-27>

[It is quite possible that a Turkish learner **of** English may commit numerous errors **due to** the fact that English and Turkish typologically have many different features like article system, usage **of** prepositions, word order, spelling, etc.]

Extracted from <TSA-31>

[The teaching **of** writing **to** non-native speakers **of** English has matured **since** 1966.]

Extracted from <TSA-14>

[**Among** the various web-based applications such as instant messaging, news groups and distance learning courses, online discussion forums stand out **as** one **of** the most popular Internet tools.]

Extracted from <TSA-25>

[Reading **in** a foreign language has been one **of** the primary foci **of** second language acquisition researchers **in** recent years.]

Extracted from <TSA-32>

[**From** the sociocultural viewpoint, a combination **of** personal and professional social contexts **of** a teacher clearly affects the development **of** the teacher identity **as** a part **of** social learning (Law, Meijers, & Wijers, 2002), and researchers have attempted to figure out this effect **through** the *onion model*.]

Extracted from <TSA-41>

Frequency of prepositions, included in the study, according to their types in the introduction sections of the articles by the native speakers (NSs) of English was examined to show the distribution of the prepositions in each type. The results were presented in Table 9.

Table 9.

The Frequency of the Prepositions According to Their Types in the Introduction Sections of the Articles Written by the Native Speakers of English

Prepositions of Space and Movement	Prepositions of Time		Prepositions that Show Logical Relationships				Participial Prepositions				
	n	%	n	%	n	%	n	%			
above	28	1.2	after	20	11.0	about	110	2.7	concerning	2	15.4
across	19	0.8	at	19	10.4	as	368	9.1	considering	6	46.2
against	6	0.3	before	16	8.8	as well as	33	0.8	regarding	5	38.5
along	2	0.1	during	45	24.7	because of	6	0.1	Total	13	
alongside	12	0.5	for	11	6.0	by	271	6.7			
among	25	1.1	in	33	18.1	despite	26	0.6			
around	29	1.2	on	4	2.2	due to	15	0.4			
as far as	3	0.1	prior to	7	3.8	for	589	14.5			
at	108	4.6	since	21	11.5	from	135	3.3			
away from	7	0.3	until	3	1.6	in addition to	11	0.3			
behind	2	0.1	up to	2	1.1	like	19	0.5			
below	15	0.6	upon	1	0.5	of	2,322	57.2			
between	100	4.2	Total	182		on	92	2.3			
beyond	19	0.8				together with	3	0.1			
from	205	8.7				with	30	0.7			
in	1,290	54.6				without	20	0.5			
in front of	2	0.1				Total	4,056				
in the middle of	4	0.2									
into	58	2.5									
near	2	0.1									
on	85	3.6									
out of	2	0.1									
outside	18	0.8									
over	21	0.9									
through	75	3.2									
throughout	13	0.5									
to	185	7.8									
toward(s)	14	0.6									
under	10	0.4									
Total	2,364										

n= frequency of the preposition

%= percentage of the preposition in total of words in groups

As indicated in Table 9, the prepositions that show logical relationships were the most prominent type of the prepositions in the introduction sections of the articles written by the NSs with a frequency of 4,056. Similar to those in Table 8, prepositions of space and movement (n=2,364), prepositions of time (n=182) and participial prepositions (n=13) were followed by the prepositions that show logical relationships. Among the prepositions that show relationships, “*of*” (n=2,322) was also the most marked preposition. Similarly, “*for*” (n=589) was the second most frequent preposition in this type of prepositions. “*With*” was the third most frequent preposition in the introduction sections of the articles written by the TSs. However, in the introduction sections of the articles written by the NSs, “*as*” bearing the meanings “in the role of” or “under the role of” was the third most frequent preposition (n=368). In the group of the prepositions of space and movement, “*in*” was the most frequent preposition (n=1,290). Among the preposition of time, “*upon*” was the lowest in number (n=1). The sentences below are the examples extracted from the introduction sections of the articles written by the NSs.

Example 8

[One important bi-product of the academic literacies perspective, often- cited **as** one **of** its greatest strengths, is that it distances the development **of** English language within higher education from the notion **of** deficit with which it has, **for** many, been traditionally associated.]

Extracted from <NSA-39>

[However, **with** the English language now used **as** a global lingua franca **in** a huge range of different cultural contexts, a correlation **between** the English language and a particular culture and nation is clearly problematic.]

Extracted from <NSA-15>

[A common finding **in** most, if not all, **of** these studies is the preponderance **of** the recitation script (Lemke 1990), which is characterized **by** teacher-led sets **of** questions that are often unrelated and require students to respond **with** factual answers and known information.]

Extracted from <NSA-23>

[Cooperative peer interaction can assist language development **by** ‘providing comprehensible input and output’ (ibid.: 234) especially when learners support each other **by** offering assistance **with** L2 forms **through** negotiation **of** meaning.]

Extracted from <NSA-40>

[The current research was conducted **with** in-sessional ESAP law students **from** the University **of** Helsinki Language Centre **for** whom the construction **of** a discipline- and level-specific corpus is not practical.]

Extracted from <NSA-47>

[However, **in** ELT, management training **at** any level is not evidenced enough, either **in** the literature or practice, to warrant much informed discussion **of** the direction it should take.]

Extracted from <NSA-35>

[Chan (2009) notes that **despite** the considerable number **of** studies of language use **in** business settings, “the interface **between** research and pedagogy remains weak” (p. 125), and this claim is borne out **by** her study **of** the ways in which textbooks deal with business meetings.]

Extracted from <NSA-10>

[**In** Hubing’s (2011) uniquely focused paper “Language Learning and Transit Refugees **in** Turkey”, he comments **on** the many well-documented benefits **of** knowing English **on** entering the host country (pp. 10-14).]

Extracted from <NSA-45>

CHAPTER V

5. CONCLUSION

5.1. Introduction

This corpus-based study aimed to identify the most salient preposition types in the abstract and introduction sections of the articles in the field of ELT written by the Turkish speakers (TSs) of English and the native speakers (NSs) of English. The articles, published between 2009 and 2018, were randomly selected, and descriptive and quantitative analyses were applied. In the present study, prepositions of space and movement, prepositions of time, prepositions that show logical relationships, and participial prepositions were analyzed in terms of their types, frequency, log-likelihood (LL) and underuse and overuse values. This section discusses the evaluation of these types of prepositions under two parts: a) evaluation of preposition types in the abstract sections of the articles, and b) evaluation of preposition types in the introduction sections of the articles. Implications of the study for the field of ELT and suggestions for future research were also discussed.

5.2. Evaluation of Preposition Types in the Abstract Sections of the Articles Prepared by the Turkish Speakers of English and the Native Speakers of English

Regarding the abstract sections of the articles that were included in the present study and written by the TSs and the NSs, the writers kept the abstracts short and concise due to the characteristics of this section in nature. This small size of the abstract sections naturally affected the types of preposition used in these sections, causing the number of the prepositions to be low. Although each type of the prepositions included in the study was used by both the TSs and the NSs, word frequency in the abstract sections were different. In particular, this frequency was higher in those written by the TSs ($n=1,641$) than that of the NSs ($n=943$) with a difference of 698. Moreover, the low numbers of prepositions in the groups of preposition types observed in the abstract sections of the articles written by the NSs could have resulted from the word count limitation in the abstract sections of the journals that the NSs published their articles because most of these articles were retrieved from the same academic journal.

On analysis of the most salient type of prepositions, frequency rates of the prepositions that show logical relationships were significantly higher in the abstract sections of the articles written by the TSs and the NSs. This type of prepositions was followed in the same order per author group by the prepositions of space and movement, the prepositions of time, and participial prepositions. The preposition with the highest frequency was “*of*”, which was listed among the prepositions that show logical relationship. This most probably resulted from the linguistic characteristics of this preposition. From grammatical and lexical points of view, in addition to its most common function of expressing genitive, “*of*” has many functions including to identify a quality or feature that something has, to demonstrate the relationship between a part or parts, to combine nouns in circumstances in which the first noun identifies the quality of the second noun, to say what something contains, etc. (Longman, n.d.). In the study Teneke (2017) conducted, “*of*” was the most frequent preposition (n=137) with 29.1% among other 45 prepositions that variously featured 470 times, and also the genitive “*of*” was the preposition with the highest number featuring with 10 appearances. In a semantic corpus-based study in which top 20 prepositions were analyzed based on their types as prepositions of location, prepositions of motion, prepositions of relation, prepositions of time, and others, Rhee (2004) reported that “*of*” was the most significant with the highest frequency. Accordingly, in the present study the higher rate of the prepositions that show logical relationships could directly be related to the high frequency of “*of*” in the abstract sections written by the TSs and the NSs.

In addition to the preposition “*of*”, the most significant preposition was “*in*” which as a preposition of space and movement, and a preposition of time in the abstract sections of the articles written by the TSs. This could be related to another attribute of “*in*” that includes the meaning of involvement, participation or commitment (Rice, 1993). Although “*in*”, after “*of*”, was the most significant preposition as a preposition of space and movement, its frequency as a preposition of time was low in the abstract sections of the articles written by the NSs. The preposition “*during*” was the most notable preposition among the prepositions of time. The frequency of preposition “*for*” which was noted among those that show logical relationships was quite close in the abstract sections of the TSs (n=69) and the NSs (n=60). High frequency of this type of prepositions could have resulted from the various meanings of this preposition as can be seen in Collins Dictionary (Collins, n.d.) that includes 27 different meanings of “*for*” as just a preposition.

5.3. Evaluation of Preposition Types in the Introduction Sections of the Articles Prepared by the Turkish Speakers of English and the Native Speakers of English

Compared to the abstract sections of the articles, the introduction sections from which the data of the present study were collected were larger in size in general, and this was observed in the frequency of the prepositions in the group of each preposition type. As was in the abstract sections of the articles, the prepositions that show logical relationships were still the most salient preposition type in the introduction sections of the articles. This can be related to the functions and meanings of this type of prepositions. As Prodromou (1999) stated, some prepositions have the roles of conjunctions and transition markers, which could make them more apparent in texts. Similarly, Schramm (1989) argues that prepositions can feature as adjuncts as well as words marking the arguments of predicates and combining with other linguistic items for expressing new meanings. The high frequency of the prepositions that show logical assumptions in the present study can also be related to the content of the articles written by the TSs and the NSs. Since the articles were all prepared for a specific academic field, ELT, they include scientific research and facts. Therefore, they needed a writing style that is expected to express different points from different aspects. This also requires the use of prepositions that show logical relationships between the language items in the texts such as “*of*” to combine nouns with different functions, “*for*” to express mainly aim, “*with*” to express agent, etc.

Based on Sinclair’s (1991) pilot study of the Birmingham corpus, Kennedy argued that “*of*” was the most frequent preposition among all English prepositions (Kennedy, 1998). In the same study, Kennedy compared Brown corpus with Lancaster-Oslo/Bergen (LOB) corpus and reported that “*of*” was the most frequent preposition among the top six prepositions (*in, to, for, with, on*). He also concluded that “*of*” has tendency to collate with the items that precede it rather than those that follow.

The majority of the articles written by the TSs, examined within the scope of the study included practical studies related to the field of ELT such as motivation and critical reading, the role of teacher talk in EFL classrooms, the effect of comic strips on EFL reading comprehension classes, etc. Accordingly, these parts mostly reported information regarding several practices and educational applications, conducted with a group or groups of learners, which require specific settings such as a classroom, a school, a university, etc. where prepositions of space and movement were mostly used.

In parallel with this, these practices required the use of prepositions of time such as “*in*” and other prepositions of time (e.g. *at*, *during*, *for*, *before*, etc.) to denote the time or duration of the studies as well as prepositions of space and movement (e.g. *in*, *at*, *between*, *among*, *across*, etc.) to express the locations where the studies were conducted. Although there were articles written by the NSs which included studies discussing educational practices, as those in the articles in the TSs, they mostly addressed the issues in the field of ELT from a methodological point of view and generally aimed to enlighten the readers based on their academic background and experience (Jenkins, 2012; Allen, 2015; Cowie, 2018). They usually included theoretical approaches. Some of these studies discussed for example the perspectives on spoken grammar, theory and practice in ELT curriculum, strategies in ELF classrooms etc. As well as the smaller size of the articles written by the NSs, the content of the articles could be a factor for the low quantity of the prepositions in each type of prepositions.

Participial prepositions were generally low in the articles written by the TSs and the NSs, which was typical for academic purposes for which they were intended. The articles included in the study were all in the field of ELT; however, as Maclin (1996) reported, participial prepositions are mostly used in the field of business or correspondence regarding trade or negotiations, which is quite different from the contents of the articles in the present study.

The overall difference in the numbers of the prepositions, in other words higher numbers of preposition types in the articles written by the TSs could be attributed to the academic style that TSs adopt when writing in English. The TSs generally tended to use longer sentences when compared to the NSs, which required using more linguistic items, including more prepositions.

5.4. Implications for ELT

Today's computer technology provides storage and analysis of a large amount of language data and makes them easily available and processed. The potential benefits of corpus studies in language learning and teaching have been discussed from different perspectives. Many linguists who support using corpora have argued that corpora can facilitate learning a language and offer a powerful tool for language learners to provide information such as colligations, collocations, and semantic productions in which they

can discover the original patterns of language and can hardly be obtained otherwise (Hunston, 2002; Meunier, 2002; Bernardini, 2004). Due to the considerable potential of corpus studies in language teaching and learning, some researchers such as Aston (1997), Tribble (2001), Hunston (2002), Conrad (2004) and Braun (2007) regarded them as valuable resources and innovative teaching tools.

Results of corpus studies, as that of this present study, which examine the most salient types of prepositions are important because they can provide various factors in language teaching such as those who plan ELT curricula, textbook writers, teachers and learners with some benefits. For example, by reviewing and evaluating the results of the studies like those conducted by Mindt and Weber (1989) and Kennedy (1998), curriculum planners can prepare the content of the curricula regarding the priorities of prepositions in the textbooks at different levels that will be used either in schools or courses. According to Tsui (2004), students are able to learn the target language by focusing on highly frequently occurred words within a given corpus. By keeping the most frequent types of prepositions in mind, curriculum planners can offer teaching these prepositions in a specific order based on learning level. This can give an idea about whether the curriculum to be prepared is appropriate for the priorities of the students. In addition, this will also help them consider including prepositions into syllabus not only as just prepositions but also their appearance in their grammatical or collocational framework.

Corpus linguistics has an impact on the content of language teaching (Hunston, 2002), and the frequency of language items in specific corpora can provide data for those who develop instructional materials. Therefore, the results of the studies examining the types of preposition may give insight to textbook writers in the selection of texts and prepositions when they need to include prepositions in their books. As Conrad (2000) pointed out, corpus studies provide information about the frequency of the use of linguistic elements and help identify priorities in the preparation of ESL teaching materials. According to Biber (2000), prepositions are the most common function words in news, academic articles, and stories, although they are much less common in spoken language. Accordingly, textbook writers can create their teaching materials by considering which preposition types are used more based on different learning skills. This is also valid for writers who prepare graded reader corpora whose contents particularly need to be suitable for the levels of learners.

The results of such studies or, in general corpus-based research, may also have implications on teachers. These studies could provide teachers with valuable information regarding their decisions about selection of materials that include teaching prepositions and types of repositions. Recognizing which preposition types are most salient and which prepositions need to be given primary attention will help teachers in designing their teaching strategies. In other words, this may help teachers give priority to specific type or types of prepositions in their teaching activities thus saving their time and energy by using filtering process. Accordingly, the effects of such teaching process will be reflected on the learners who will not have to learn all the types of prepositions at a time.

5.5. Suggestions for Further Research

As discussed in the present study, prepositions are among the most challenging language items for learners of EFL, and researchers who specifically focused on studies investigating prepositions argued that prepositions can be examined from different aspects. In this study, only four types of prepositions (prepositions space and movement, prepositions of time, prepositions that show logical relationships, and participial prepositions) were analyzed and the most common prepositions used in these types were included. Therefore, studies that will include more preposition types such as prepositions of state or condition, prepositions of quality or measure, prepositions of phrases and prepositions of manner as well as with more prepositions in number are suggested to be conducted.

This study examined only the abstract and introduction sections of the articles written in the field of ELT by the Turkish speakers (TSs) of English and the native speakers (NSs) of English. Studies which include other sections of the articles could provide a deeper insight about the most salient types of prepositions. In addition, the source of data for these kinds of studies can be multiplied using other academic productions such as master theses, doctoral dissertations and other academic texts. Studies analyzing preposition types in different disciplines in the field of social sciences could provide new perspectives to further research on prepositions and preposition types.

Language is dynamic; it is continually transformed by use, and its potential continuously evolves and changes. Therefore, results of corpus studies provide data

both related to frequency or likelihood of words in it and show the difference between old and up-to-date language items in itself. In the present study, the articles written between 2009 and 2018 by the TSs and the NSs were used as the source of data and were analyzed. However, preposition types and prepositions in each preposition type can be analyzed based on in scientific manuscripts written in distant periods of time which might provide more data and detailed information about them and allow to compare changes in their frequency.

Corpus-based activities including preposition types, and prepositions in particular, which can be implemented in classrooms can provide learners with the use of corpora directly or indirectly and allow them to practice actively. Using concordances, learners can create their own word lists, glossaries or even simple dictionaries through these activities.

English is now a world language which is used as both lingua franca or a mother tongue in several countries in various parts of the world such as Britain, the USA, Australia, Ireland, anglophone Canada, New Zealand, etc. (Crystal, 2003). Although English is a common element in these countries wherein it is used as an official language, people can sometimes encounter noticeable variations in it. Therefore, studies that analyze preposition types in these different countries where English is spoken could give information about the most salient preposition types. This comparison can also be made between World Englishes (Kachru, 1985) and standard English, an example of which is the present study that analyzed the articles in the field of ELT written by the TSs of English and the NSs of English. Gender and academic levels of authors can also be analyzed. Such studies could give insight whether usage and types of prepositions are related to these factors.

6. REFERENCES

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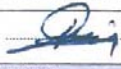

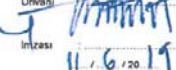

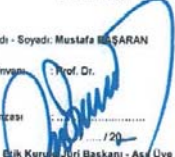
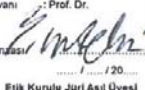

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7. APPENDICES

Appendix 1. Ethics Committee Approval Document

T.C. ÇAĞ ÜNİVERSİTESİ SOSYAL BİLİMLER ENSTİTÜSÜ TEZ / ARAŞTIRMA / ANKET / ÇALIŞMA İZİNİ / ETİK KURULU İZİNİ TALEP FORMU VE ONAY TUTANAK FORMU			
ÖĞRENCİ BİLGİLERİ			
T.C. NOSU	35812091002		
ADI VE SOYADI	MEHMET EMİN KÖK		
ÖĞRENCİ NO	20178072		
TEL. NO / LARI	0551 171 05 36		
E - MAİL ADRESLERİ	emhkok7@hotmail.com		
ANA BİLİM DALI	İNGİLİZCE ÖĞRETMENLİĞİ		
PROGRAM ADI	İNGİLİZ DİLİ EĞİTİMİ		
BİLİM DALININ ADI	İNGİLİZCE ÖĞRETMENLİĞİ		
HANGİ AŞAMADA OLDUĞU (DERS / TEZ)	TEZ		
İSTEKTE BULUNDUĞU DÖNEME AIT ÖDENEMLİK KAYDININ YAPILIP-YAPILMADIĞI	BAHAR DÖNEMİ 2018 - 2019 DÖNEMİ KAYDINI YENİLEDİM.		
ARAŞTIRMA/ANKET/ÇALIŞMA TALEBİ İLE İLGİLİ BİLGİLER			
TEZİN KONUSU	Anadil Türkçe olan ve olmayan yazarlar tarafından ELT alanında yayınlanmış akademik makalelerde kullanılan ilgeç türlerinin kullanım sıklığı analizi		
TEZİN AMACI	İlgili alanda kullanılacak bilgisayar programları vasıtasıyla anadil Türkçe olan ve anadil Türkçe olmayan yazarlar (bu çalışmada anadil İngilizce olan yazarlar) tarafından ELT alanında yayınlanmış akademik makalelerde kullanılan ilgeç türlerinin kullanım sıklığını inceleme ve ilgeç türlerinin belirli yazarlar türlerine göre kullanım dağılımını belirleme		
TEZİN TÜRKÇE ÖZETİ	Dilbilimin bir dalı olan corpus linguistics (derlem dilbilim) temel olarak dilin gerçekliğini keşfetmeye çalışır. Sözlü ve yazılı olarak özgün biçimde oluşan metnin görsel gözlemine ve analizi öğrenen yaklaşım bir benimsenmektedir. Bilgi toplama imkânlarının kısıtlı olduğu öncesi yüzyılların aksine günümüz teknolojiyi bize sağladığı her alanda muazzam fırsatlar sunmaktadır. Dilbilim çalışmaları da bilgisayar teknolojilerinden yararlanmakta ve yazılı veya sesli dil ürünlerini alma, arşivleme, sınıflandırma ve yayınlamadaki imkânlar sayesinde bu teknolojiye etkili bir şekilde kullanılmaktadır. Günümüz şartları göz önüne alınarak "derlem" için bilgisayarla toplanan geniş bir yazılı veya sözlü dil koleksiyonu olarak yeniden tanımlanabilir. İngilizce'de edeller, ana dili İngilizce olmayan pek çok İngilizce konuşanın kullanımında sorun yaratan dil öğelerinden biridir. Bu durum yazılı ve sözcüksel özellikleri İngilizce'den farklı olan (Türkçe gibi) diller arasında açıkça görülmektedir. Bu derlem çalışması anadil Türkçe olan ve olmayan kişiler tarafından ELT alanında yayınlanmış makalelerde kullanılan edat türlerini değerlendirmeyi amaçlamaktadır. Çalışma sadece ilgeç türlerinin dağılımını ve kullanım sıklığını inceleyecek olup data analizlerini kapsamayacaktır. Veriler ELT alanındaki toplam 100 makalede ve yalnızca özel ve tenkit bölümlerinde kullanılan edat türlerinden elde edilecektir.		
ARAŞTIRMA YAPILACAK OLAN SEKTÖRLER / KURUMLARIN ADLARI	Türk Yazarlar		
İZİN ALINACAK OLAN KURUMA AIT BİLGİLER (KURUMUN ADI - ŞUBESİ / MÜDÜRLÜĞÜ - İL / İLÇESİ)			
YAPILMAK İSTENEN ÇALIŞMANIN İZİN ALINMAK İSTENEN KURUMUN HANGİ İLÇELERİNDE HANGİ KURUMUNUN HANGİ BÖLÜMLERİNDE HANGİ ALANLAR HANGİ KODLARDAN HANGİ GRUBUN KİMLERİNE NE UYULANACAK İZİN AYRINTILI BİLGİLER			
UYULANACAK OLAN ÇALIŞMAYA AIT ANKETLERİN ÖLÇÜLERİNİN BAŞLIKLARI HANGİ ANKETLERİN - ÖLÇÜLERİN UYULANACAKI			
EKLER (ANKETLER, ÖLÇÜLER, FORMLAR - DİĞER EVRAKLARIN İSİMLERİYLE BİRLİKTE KAÇ ADETİSAYFA OLDUKLARINA AIT BİLGİLER İLE AYRINTILI YAZILACAKTIR)	1) 2) 3) 4)		
ÖĞRENCİNİN ADI - SOYADI: MEHMET EMİN KÖK	ÖĞRENCİNİN İMZASI: 	TARİH: 26.04.2019	
TEZ / ARAŞTIRMA/ANKET/ÇALIŞMA TALEBİ İLE İLGİLİ DEĞERLENDİRME SONUCU			
1. Seçilen konu Bilim ve İş Dünyasına katkı sağlayabilecektir.			
2. Anılan konu faaliyet alanı içerisinde girmektedir.			
1. TEZ DANIŞMANININ ONAYI	2. TEZ DANIŞMANININ ONAYI (VARSA)	SOSYAL BİLİMLER ENSTİTÜSÜ MÜDÜRÜNÜN ONAYI	A.B.D. BAŞKANININ ONAYI
Adı - Soyadı: ZEHRA KÖROĞLU Unvanı : Dr Öğretim Üyesi İmzası:  / 20	Adı - Soyadı: Unvanı : İmzası: / 20	Adı - Soyadı: Dr. Öğr. Üyesi İbrahim İNAN Unvanı : İmzası:  11.6 / 20 19	Adı - Soyadı: ŞEHAZ SAĞIN KARAĞAÇ Unvanı : Prof. Dr. İmzası:  / 20
ETİK KURULU ASİL ÜYELERİNE AIT BİLGİLER			
Adı - Soyadı: Mustafa BARBARAN Unvanı : Prof. Dr. İmzası:  Etik Kurulu Jüri Başkanı - Asil Üye	Adı - Soyadı: Yücel ERTEKİN Unvanı : Prof. Dr. İmzası:  Etik Kurulu Jüri Asil Üyesi	Adı - Soyadı: Deniz AYNER GÜLER Unvanı : Prof. Dr. İmzası:  26.04.2019 Etik Kurulu Jüri Asil Üyesi	Adı - Soyadı: Ali Engin OBA Unvanı : Prof. Dr. İmzası: Etik Kurulu Jüri Asil Üyesi
Adı - Soyadı: Unvanı : İmzası: Etik Kurulu Jüri Asil Üyesi	Adı - Soyadı: Mustafa TEVİK ÖDMAN Unvanı : Prof. Dr. İmzası: Etik Kurulu Jüri Asil Üyesi	Adı - Soyadı: Unvanı : İmzası: Etik Kurulu Jüri Asil Üyesi	Adı - Soyadı: Unvanı : İmzası: Etik Kurulu Jüri Asil Üyesi
Adı - Soyadı: Unvanı : İmzası: Etik Kurulu Jüri Yedek Üyesi			
<input type="radio"/> OY BİRLİĞİ İLE <input checked="" type="radio"/> OY ÇOKLUĞU İLE			
Çalışma yapılacak olan tez için uygulayacak olduğu Anketler/ Formlar/Ölçüleri Çağ Üniversitesi Etik Kurulu Asil Jüri Üyelerince incelenmiş olup, / 20 tarihinde arasında uygulanmak üzere gerekli izin verilmesi tarafımızca uygundur.			

AÇIKLAMA: BU FORM ÖĞRENCİLER TARAFINDAN HAZIRLANDIKTAN SONRA ENSTİTÜ MÜDÜRÜNE ONAYLATILARAK ENSTİTÜ SEKRETERLİĞİNE TESLİM EDİLECEKTİR.

EKLER: Sayfa Ölçeği
..... Sayfa Anket.
..... Sayfa Formlar.

SoAE-1080

Appendix 2. Types of Prepositions

<u>Prepositions of Space and Movement</u>	<u>Prepositions of Time</u>	<u>Prepositions that show logical relationships</u>	<u>Participial prepositions</u>
above	after	as	concerning
across	at	as well as	considering
against	before	about	excepting
along	during	because of	regarding
alongside	for	besides	
among	in	by	
around	on	despite	
at	prior to	due to	
away from	since	except	
behind	till	from	
below	until	for	
between	up to	in addition to	
beyond	upon	in spite of	
down		like	
far from		of	
from		on	
in		on account of	
in front of		out of	
inside of		owing to	
in the middle of		together with	
into		with	
near		without	
off			
on			
opposite			
out			
out of			
outside			
over			
through			
throughout			
to			
toward(s)			
under			

Appendix 3. Codes of Articles Written by the Turkish Speakers of English

Code	Year	Institution
TS1	2009	Gazi University, Turkey
TS2	2009	Gazi University, Turkey
TS3	2009	Çukurova University, Turkey
TS4	2009	Kocaeli University, Turkey
TS5	2009	Akdeniz University, Turkey
TS6	2010	Anadolu University, Turkey
TS7	2010	Akdeniz University, Turkey
TS8	2010	Hasan Kalyoncu University, Turkey
TS9	2010	Gazi University, Turkey
TS10	2010	Gazi University, Turkey
TS11	2011	Dokuz Eylül University, Turkey
TS12	2011	Çanakkale University, Turkey
TS13	2011	Dicle University, Turkey
TS14	2011	Trakya University, Turkey
TS15	2011	Yıldırım Beyazıt University, Turkey
TS16	2012	Karadeniz Technical University, Turkey
TS17	2012	Akdeniz University, Turkey
TS18	2012	Mehmet Akif Ersoy University, Turkey
TS19	2012	Başkent University, Turkey
TS20	2012	Uşak University, Turkey
TS21	2013	Akdeniz University, Turkey
TS22	2013	Anadolu University, Turkey
TS23	2013	Pamukkale University, Turkey
TS24	2013	Karadeniz Technical University, Turkey
TS25	2013	Mersin University, Turkey

Code	Year	Institution
TS26	2014	Middle East Technical University, Turkey
TS27	2014	Hacettepe University, Turkey
TS28	2014	Marmara University, Turkey
TS29	2014	Abant İzzet Baysal University, Turkey
TS30	2014	Ordu University, Turkey
TS31	2015	Middle East Technical University, Turkey
TS32	2015	Bingöl University, Turkey
TS33	2015	Hacettepe University, Turkey
TS34	2015	Fırat University, Turkey
TS35	2015	Fırat University, Turkey
TS36	2016	Afyon Kocatepe University, Turkey
TS37	2016	Düzce University, Turkey
TS38	2016	Dumlupınar University, Turkey
TS39	2016	Uludağ University, Turkey
TS40	2016	Karabük University, Turkey
TS41	2017	Bandırma Onyedİ Eylül University, Turkey
TS42	2017	Afyon Kocatepe University, Turkey
TS43	2017	Middle East Technical University, Turkey
TS44	2017	Gaziantep University, Turkey
TS45	2017	Başkent University, Turkey
TS46	2018	Atatürk University, Turkey
TS47	2018	Uludağ University, Turkey
TS48	2018	National Defense University, Turkey
TS49	2018	Ondokuzmayıs University, Turkey
TS50	2018	Erzincan University, Turkey

Appendix 4. Codes of Articles Written by the Native Speakers of English

Code	Year	Institution
NS1	2009	Nanyang Technological University, Singapore
NS2	2009	Carleton University in Ottawa, Canada
NS3	2009	University of Technology, Australia
NS4	2009	University of Melbourne, Australia
NS5	2009	Sheffield Hallam University, UK
NS6	2010	Petroleum Institute, United Arab Emirates
NS7	2010	University of Arizona, USA
NS8	2010	Royal Institute of Technology, Sweden
NS9	2010	University of Auckland, New Zealand.
NS10	2010	City University of Hong Kong, Hong Kong
NS11	2011	University of Tokyo, Japan
NS12	2011	University of Leicester, UK
NS13	2011	Leicester University, UK
NS14	2011	University of Melbourne, Australia
NS15	2011	University of Southampton, UK
NS16	2012	Lancaster University, UK
NS17	2012	University of Southampton, UK
NS18	2012	University of Portsmouth, UK
NS19	2012	Reinische Fredrich Wilhems University, Germany
NS20	2012	Aston University, UK
NS21	2013	University of Indonesia, Indonesia
NS22	2013	The University of Edinburgh, UK
NS23	2013	Macquarie University, Australia,
NS24	2013	University of Huntsville, USA
NS25	2013	University of Hawai'i, USA

Code	Year	Institution
NS26	2014	York St John University, UK
NS27	2014	York St John University, UK
NS28	2014	Umea University, Sweden
NS29	2014	University of Leeds, UK
NS30	2014	University of Leeds, UK
NS31	2015	University of Tokyo, Japan
NS32	2015	Linnaeus University, Sweden
NS33	2015	Waikato Institute of Technology , New Zealand
NS34	2015	University of South Eastern Norway, Norway
NS35	2015	Hosei University, Japan
NS36	2016	University of Bath, UK
NS37	2016	Peking University, China
NS38	2016	University of Western Ontario, Canada
NS39	2016	University of Warwick, UK
NS40	2016	Gakuin University, Tokyo
NS41	2017	Biola University, USA
NS42	2017	University of Girona, Spain
NS43	2017	Keio University, Japan
NS44	2017	Universidad Pablo de Olavide, Spain
NS45	2017	Macao Polytechnic Institute, China
NS46	2018	University of Hawai'i Mānoa, USA
NS47	2018	University of Helsinki, Finland
NS48	2018	Lund University, Sweden
NS49	2018	Örebro University, Sweden
NS50	2018	Okayama University, Japan

8. CURRICULUM VITAE

PERSONAL DETAILS

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1993-2010 Teacher of English