THE IMPACT OF THE EXPLICIT INSTRUCTION OF LEXICAL BUNDLES ON ACADEMIC WRITING SKILLS OF TURKISH EFL LEARNERS

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PHD DISSERTATION

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ÖZET

AÇIK YÖNERGELİ SÖZCÜK ÖBEKLERİ ÖĞRETİMİNİN INGILIZCEYI YABANCI DİL OLARAK ÖĞRENEN TÜRK ÖĞRENCİLERİNİN AKADEMİK YAZMA BECERİLERİ ÜZERİNDEKİ ETKİSİ

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Bu çalışmanın amacı, farkındalık, geri kazanım ve üretici aktiviteler aracıyla yapılan açık yönergeli sözcük öbekleri öğretiminin, İngilizceyi yabancı dil olarak öğrenen Türk öğrencilerin akademik yazma becerileri üzerindeki etkisini araştırmak ve onların bu uygulama ile ilgili düşüncelerini ortaya çıkarmaktır. Çalışmanın katılımcıları, Osmaniye Korkut Ata Üniveritesi, Yabancı Diller Yüksekokulu'nda kayıtlı İngilizceyi yabancı dil olarak öğrenen 30 Türk öğrencidir. Çalışmada hem nicel hem de nitel araştırma araçları kullanılmıştır. Çalışma, katılımcıların bir deney grubunda yer aldığı grup içi zaman serisi tasarımını içermektedir. Algıya dayalı bilgilerini ölçmek için çoktan seçmeli testin, kontrollü üretmeye dayalı bilgileri ölçmek için boşluk doldurma testin ve kontrolsüz üretmeye dayalı bilgileri ölçmek için ise tartışma paragraflarının ön-test, uygulama sonrası test ve ertelenmiş test sonuçları toplanmıştır. Nitel veriler ise on beş kapalı uçlu ve üç açık uçlu soru içeren iki bölümden oluşan bir anket aracılığıyla toplanmıştır. Çalışmanın sonuçları farkındalık, geri kazanım ve üretici aktiviteler aracıyla yapılan açık yönergeli sözcük öbekleri öğretiminin hem algıya dayalı bilginin kazanımı ve bilgiyi akılda tutma üzerinde etkisi hem de kontrollü ve kontrolsüz üretmeye dayalı bilginin kazanımı ve akılda tutma üzerinde önemli bir etkisi olmuştur. Yine de, kontrolsüz üretmeye dayalı bilginin uygulama sonrası ve ertelenmiş test sonuçları, katılımcıların akılda tutma oranlarında önemli bir derecede düşüş olduğunu göstermiştir. Çalışmanın nitel bölümünün sonuçları, katılımcıların bu uygulamadan, hedef sözcük öbeklerini kullanarak akademik yazma

kalitelerini geliştirmede yarar sağladıklarını ve uygulamadan sonra kendi yazılarında daha fazla hedef sözcük öbeği kullanmaya istekli olduklarını göstermiştir.

Anahtar Sözcükler: Sözcük öbekleri, Akademik yazı, Açık yönergeli öğretim, Farkındalık, Geri kazanım ve Üretici aktiviteler.

ABSTRACT

THE IMPACT OF EXPLICIT INSTRUCTION OF LEXICAL BUNDLES ON ACADEMIC WRITING SKILLS OF TURKISH EFL LEARNERS

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The aim of the current study is to investigate the impact of the explicit instruction of lexical bundles through noticing, retrieval and generative activities on academic writing of Turkish EFL students and to reveal participants' opinions on this treatment.The participants of the study were 30 Turkish EFL learners enrolled in School of Foreign Languages at Osmaniye Korkut Ata University. Both quantitative and qualitative instruments were used in the study.The study includes a within group time series design in which participants were involved in one treatment group. The quantitative data were collected through pre-test, immediate post-test and delayed post-test scores of multiple choice test (for measuring receptive knowledge), c-test (for measuring controlled productive knowledge) and argumentative paragraphs (for measuring uncontrolled productive knowledge). The qualitative data were collected through questionnaire including two sections; fifteen closed-ended and three open-ended questions.The results of the study found out that explicit instruction of lexical bundles through noticing, retrieval and generative activities had a significant effect both on achievement and retention of receptive lexical bundle knowledge, and on achievement and retention of productive lexical bundle incontrolled and uncontrolled situations. However, the comparison of immediate post-test and delayed post-test scores of the productive

knowledge of lexical bundles in uncontrolled situation showed that there was a significantly decrease in the retention of the participants. The results of the qualitative part of the study showed that participants highly benefited from this treatment, which helped them improve their academic writing quality by using the target lexical bundles. Moreover, after the treatment, they were more willing to use the target bundles in their writing.

Keywords: Lexical bundles, Academic writing, Explicit instruction, Noticing, Retrieval and generative activities.

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ETİK İLKE VE KURALLARA UYGUNLUK BEYANNAMESİ

Bu tezin bana ait, özgün bir çalışma olduğunu; çalışmamın hazırlık, veri toplama, analiz ve bilgilerin sunumu olmak üzere tüm aşamalardan bilimsel etik ilke ve kurallara uygun davrandığımı; bu çalışma kapsamında elde edilemeyen tüm veri ve bilgiler için kaynak gösterdiğimi ve bu kaynaklara kaynakçada yer verdiğimi; bu çalışmanın Anadolu Üniversitesi tarafından kullanılan "bilimsel intihal tespit programı"yla tarandığını ve hiçbir şekilde "intihal içermediğini" beyan ederim. Herhangi bir zamanda, çalışmamla ilgili yaptığım bu beyana aykırı bir durumun saptanması durumunda, ortaya çıkacak tüm ahlaki ve hukuki sonuçlara razı olduğumu bildiririm.

(İmza)

Serpil UGAR

(Adı-Soyadı)

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LIST OF ABBREVIATIONS

AFL **:** Academic Formulas List

ALESS : Active Learning of English for Science Students

BAWE : British Academic Written English

BNC : British National Corpus

COCA : Corpus of Contemporary American English

EAP : English for Academic Purposes

EFL : English as a Foreign Language

ESL : English as a Second Language

FLOB : Freiburg-Lancaster-Oslo/Bergen Corpus

LB : Lexical Bundles

LGSWE **:** Longman Grammar of Spoken and Written English

LSWE : Longman Spoken and Written English Corpus

MICASE : Michigan Corpus of Academic Spoken English

TEFL : Teaching English as a Foreign Language

TOEFL : Test of English as a Foreign Language

TSRAC : Turkish Scholars Research Articles Corpus

VKS : Vocabulary Knowledge Scale

CHAPTER ONE
INTRODUCTION

1.1.Background to the Study

Formulaicity (i.e., knowledge of conventionalised multi-word combinations) in academic writing has gained an increasing attention on the collection of recent studies over the past decades (Nattinger & DeCarrico, 1992; Biber, Johansson, Leech, Conrad, & Finegan, 1999; Erman & Warren, 2000; Jones & Haywood, 2004; Cortes, 2004, 2006; Li & Schmitt, 2009; Ädel & Erman, 2012). These studies focus on the use of formulaic sequences in different registers such as academic prose and conversation (Biber et al., 1999; Biber, Conrad & Cortes, 2004), different disciplines such as biology and history (Cortes, 2004), the usage of formulaic sequences between native and non-native writings (Ädel & Erman, 2012; Öztürk, 2014) or on pedagogical aspect of these expressions (Jones & Haywood, 2004; Li & Schmitt, 2009).

Altenberg (1998) claimed that 80% of the words were made up of recurrent word combinations in London-Lund Corpus whereas different types of formulaic sequences constitute 58,6% of the spoken corpus and 52,3% of the written discourse (Erman & Warren, 2000). It has been generally agreed that formulaic sequences, as evidenced by corpus-based studies (Biber & Barbieri, 2007; Hyland, 2008a; Neely & Cortes, 2009; Nekrasova, 2009; Chen & Baker, 2010) are the building blocks of discourse in spoken and written registers. Formulaic sequences in spoken registers are distinguished from the formulaic sequences in written registers, for example, 'as can be seen' is more frequently used in academic writing while such expressions are rarely encountered in spoken registers (Hyland, 2008a, p. 5).

Formulaic sequences have been studied under different terminologies such as recurrent word combinations (Altenberg, 1998; De Cock, 1998) fixed expressions and idioms (Moon, 1998) lexical bundles (Biber, et al., 1999; Biber, et al., 2004; Cortes, 2004; Biber & Barbieri, 2007; Hyland, 2008a) repeated word combinations (Butler, 1997); collocations (Sinclair, 1991; Howarth, 1998b; Gitsaki, 1999) prefabricated patterns (or prefabs) (Granger, 1998). All these studies explain multi-word combinations in different

terminologies making use of different criteria and identifications. The term '*lexical bundle*' was first used in The Longman Grammar of Spoken and Written English (Biber et al., 1999), which compared the most frequently used formulaic sequences in conversation and academic prose. Biber et al. (1999) defined the lexical bundle as "recurrent expressions, regardless of their idiomaticity, and regardless of their structural status" (p. 990), simple sequences of three or more words that are commonly used together in spoken and written registers. Lexical bundles generally have three prominent characteristics; frequency, idiomaticity and structural combination (Biber & Barbieri, 2007). Frequency is considered to be the first defining feature of lexical bundles though the frequency cut-off point might be variable in different studies. Biber et al. (1999) stated that lexical bundles must recur at least ten times per million words at least in five different text types in the register in order to be regarded a lexical bundle. Cortes (2004) stated that a lexical bundle must occur more than twenty times in a million words. On the other hand, Biber, et al. (2004) take a more conservative approach that a lexical bundle must recur forty times in one million words. Second, the lexical bundles are not idiomatic in meaning; for example, the meanings of bundles like 'as a result of' or 'on the basis of' are transparent from the individual words. Finally, the lexical bundles do not usually perform a complete structural unit (Biber, et al., 2004). Only less than 5% of the lexical bundles in academic prose perform complete structural position (Biber et al., 1999). Instead, while most of the bundles in conversation bridge two clauses (e.g. *well that's what I, and I think that*), bundles in academic prose bridge two phrases (e.g. *in the case of, as well as the*) (Biber & Barbieri, 2007).

There are three important functions employed by lexical bundles; 'stance expressions', 'discourse organizers' and 'referential bundles'. Stance bundles explain "attitudes or assessments of certainity that frame some other proposition" (e.g. *it is possible to*) (Biber, et al., 2004, p. 384). Discourse organizers contain the connection between the former and coming discourse (e.g. *on the other hand*). Finally, the term referential bundles defined by Biber and Barbieri (2007, p. 270) as "make direct reference to physical and abstract entities, or to textual context itself" (e.g. *in the case of, in terms of the* etc.).

Coxhead and Byrd (2007, p. 134-135) highlight the significance of these lexical bundles for writers and teachers as follows:

> " **1.** these word sets are often repeated and become a part of the structural material used by advanced writers, making students' task easier because they work with ready-made sets of words rather than having to create each sentence word by word; **2.** as a result of their frequent use, such sets become defining markers of fluent writing and are important for the development of writing that fits the expectation of readers in academia; **3.** These sets of words often lie at the boundary between grammar and vocabulary; they are lexicogramatical underpinnings of a language so often revealed in corpus-based studies but much harder to see through analysis of individual texts or from a linguistic points of view that does not study language-in-use"

Ellis, Vlach & Maynard (2008, p. 375) argues that "natural language makes considerable use of recurrent formulaic patterns of words". However, the question of how to teach lexical bundles effectively in academic writing is a matter of debate in the field of instructed foreign language learning. Although much research has been devoted to corpus-based research including the distribution and the use of lexical bundles in English (Biber et al., 1999; Biber, et al., 2004; Cortes, 2004, 2006; Biber & Barbieri, 2007; Hyland, 2008a), relatively few research have addressed to the matter of the pedagogical aspect of lexical bundles on how to teach these bundles to EFL learners in academic writing.

1.2. Statement of the Problem

The majority of corpus-based studies have demonstrated that learners' employment of recurrent multi-word combinations is often problematic (Cortes, 2004; Hyland, 2008b; Li & Schmitt, 2009; Chen & Baker, 2010; Wei & Lei, 2011; Adel & Erman, 2012). According to research, although non-native learners can produce a number of native-like formulaic sequences, their limited use of formulaic sequences cause them to overuse such sequences, which makes learners' writing seem non-native (Li & Schmitt, 2009). Similarly, some studies also showed non-native learners overused or underused some lexical bundles in their writing and they used more limited and less varied lexical bundles (Allen, 2009; Adel & Erman, 2012). Even advanced non-native English learners and second language learners have substantial problems acquiring lexical bundles (Bishop, 2004; Karabacak & Qin, 2013). Moreover, the corpus-based studies examining Turkish writers' use of lexical bundles (Bal, 2010; Karabacak & Qin, 2013; Öztürk, 2014)

also demonstrated some lexical bundle problems of Turkish non-native students such as overusing most of the lexical bundles.

As can be seen from the corpus analysis research that formulaicity in academic writing is not part of the writer's natural linguistic ability (Wray, 2008; Kachru, 2009), and non-native academic writers have difficulty in acquiring native-like lexical bundles (Perez-Llantada, 2014). Such expressions are not acquired in a natural way, and even simple exposure to the use of lexical bundles in reading materials is not enough for students to produce them actively in writing. The frequency of target bundles used by students were low and the functions of these expressions employed by students do not correlate with the functions used by published academic writing. As a result, unconscious learning of lexical bundles is not beneficial for students to specialize in the use of these expressions. Cortes (2004; 2006) proposed that a possible factor for the differences in use and functions of lexical bundles might be the absence of formal explicit instruction –*noticing* the frequent use and functions of lexical bundles- in different contexts.

Explicit instruction of lexical bundles has been one of the solutions to enhancing non-native writers' acquisition process of lexical bundles in their writing by creating awareness directly to the particular forms. Long (1983) argue that there is a significant evidence that explicit instruction is useful for children and adults; for different levels of students and in acquisition-rich as well as acquisition-poor settings. If the explicit instruction is carried out including a deep level of processing, acquisition will be promoted (Jones & Haywood, 2004).

In this aspect, within the explicit instruction, Nation (2001) explains three major psycological processes for a word to be acquired; noticing, retrieval and generative use. Noticing occurs when the learner is aware of the word as useful language item. Retrieval is the second process retrieving the meaning in listening and reading or recalling an approppriate form in speaking and writing. The last significant process defined by Nation (2001, p. 105) is generative use taking place "when previously met words are subsequently met or used in ways that differ from the previous meeting with the word". Owing to the shortage of studies on ESL and EFL learners' acquisition of lexical bundles in writing production, the field of vocabulary acquisition was used for guidance on how to teach lexical bundles to language learners (Jones & Haywood, 2004; Schmitt, Dörnyei, Adolphs & Durow, 2004), because there has been significant evidence that formulaic

sequences are acquired incrementally (Schmitt, 2000; Schmitt et al., 2004; Li & Schmitt, 2009), which is similar to the method of vocabulary acquisition (Nation, 2001).

A relatively few research focused on the issue of how to teach lexical bundles receptively and productively in effective ways to language learners in their writing skills (Jones & Haywood, 2004; Cortes, 2006; Li & Schmitt, 2009; Neely & Cortes, 2009; Kazemi, Katiraei & Rasekh, 2014; Latifi & Afraz, 2015; Peters & Pauwels, 2015; AlHassan & Wood, 2015). These studies examined the effects of explicit instruction on teaching lexical bundles / formulaic sequences on learners' receptive and productive writing abilities. Some studies showed that there was a statistically significant development in the participants' knowledge of formulaic sequences both receptively and productively (Schmitt et al., 2004; Kazemi, Katiraei & Rasekh, 2014; Peters & Pauwels, 2015). On the other hand, others showed that the participants showed greater awareness of lexical bundles, but no significant improvement on the production of lexical bundles in their writing skills (Jones & Haywood, 2004; Cortes, 2006).

One of the few studies focusing on the pedagogical application of lexical bundles in academic writing was conducted by Jones & Haywood (2004) who carried out an exploratory research in order to investigate whether explicit instruction of formulaic sequences would have an effect on the awareness, accurate and appropriate production of formulaic sequences and improve learners' learning strategies in an EAP context. The study lasted 10 teaching weeks with non-native learners. The results of the study indicated that the majority of the students in the treatment group showed a significant increase in the awareness of the formulaic sequences, but no development in the learners' free production of formulaic sequences. Another study was conducted by Cortes (2006) focused on the teaching of lexical bundles to university students in a writing-intensive history class. The researcher constructed five 20 minute micro-lessons in a period of ten weeks. All the students were English native speakers. The findings of this study revealed no differences between pre-post instruction about the production of lexical bundles but there was an awareness on these multi-word combinations.

Furthermore, to the researcher's knowledge, there has been limited research that has investigated how explicit instruction of lexical bundles, -through noticing, retrieval and generative activities- affects the receptive and productive knowledge of the academic writing abilities of Turkish EFL students both quantitatively and qualitatively as the researcher collects the quantitative and qualitative data sequentially. As a consequence,

this study aims to fill the gap by covering this problem through the mixed method embedded design research.

Moreover, to researcher's knowledge, highly limited studies have focused on the pedagogical applications of the formal instruction of lexical bundles to overcome these problematic issues in Turkish context. Therefore, the purpose of this current study is to investigate the impact of the explicit instruction of lexical bundles through noticing, retrieval and generative activities on the achievement and retention of receptive and productive knowledge in controlled and uncontrolled situations in academic writing of Turkish intermediate EFL students and to reveal students' attitudes on the explicit instruction of lexical bundles in academic writing.

1.3.Objectives and Significance of the Study

This preliminary study attempts to provide a better understanding of the pedagogical aspect of how to teach lexical bundles by using explicit instruction through Nation's (2001) three psychological processes in order to promote the receptive and productive knowledge of academic writing abilities of Turkish intermediate EFL students and reveal their attitudes towards the effectiveness of formal instruction of lexical bundles in academic writing.

It is expected that the study will contribute to our understanding of the instructional process that might be helpful to the improvement of foreign language learners' receptive and productive knowledge of lexical bundles in academic writing. There is not much research about the impact of explicit instruction of lexical bundles on the receptive and productive writing abilities of Turkish EFL learners in our country. In this case, the findings gathered from the study are also expected to respond the further questions about the new ways of language teaching experience, and this study might answer the question of how the lexical bundles should be taught to foreign language learners to promote their academic abilities by contributing to the existing literature.

The research may also raise awareness of the students and lead to better production of these expressions in academic writing. Additionally, this study may provide English language instructors attaching more importance to lexical bundles with different kinds of activities in their teaching process so as to promote students' academic writing skills. Finally, It is also crucial for material developers and curriculum designers

as they can design materials integrating formulaic language in writing courses in foreign language programs in order to enhance in-depth knowledge of the use and functions of lexical bundles.

1.4.Research Questions

In this aspect, the current study addresses the following research questions:

1. Are there any significant differences among the pretest, immediate post-test and delayed post test scores of the treatment group receiving explicit instruction of lexical bundles through noticing, retrieval and generative activities on,

a. achievement and retention of receptive lexical bundle knowledge (i.e. multiple choice test) in academic writing of intermediate EFL students?
b. achievement and retention of productive lexical bundle knowledge -in a controlled situation (i.e. c-tests)- in academic writing of intermediate EFL students?
c. achievement and retention of productive lexical bundle knowledge -in an uncontrolled situation (i.e.argumentative paragraphs)- in academic writing of intermediate EFL students?

2.What are Turkish intermediate EFL learners' opinions on the explicit instruction through noticing, retrieval and generative activities of lexical bundles on augmenting their academic writing skills?

1.5. Definition of Terms

In the current study, the following terms will be used:

The term of *receptive/productive knowledge*; "the ability of a person to actively produce their own speech and writing is called productive; the ability to understand the speech and writing of other people is called receptive language knowledge" (Richards & Schmidt, 2010)

The term of *lexical bundle*; "a type of fixed phrase consisting of a sequence of three or more words that co-occur frequently in a particularly type of writing or register such as academic writing" (Richards & Schmidt, 2010)

Depending on the aims of the study, Chapter 2 presents the main body of related literature. Chapter 3 provides the methodology for the study. Chapter 4 provides the findings of the research and Chapter 5 presents a discussion of the quantitative and qualitative data analysis and the concluding remarks of the study containing the implications and limitations of the study, and suggestions for further research.

CHAPTER II

REVIEW OF LITERATURE

2.1. Introduction

A growing number of empirical studies of academic discourse have made use of corpus-driven data analysis to reveal the importance of multi-word combinations in the 1980s and 1990s. (Pawley & Syder, 1983; Sinclair, 1991; Nattinger & DeCarrico, 1992; Butler, 1997; Cowie, 1998; Altenberg, 1998; De Cock, 1998; Granger, 1998; Howarth, 1998a, 1998b; Moon, 1998; Biber, et al., 1999; Gitsaki, 1999). As a result of these studies from corpus-driven research, multi-word sequences have been studied under different terminologies such as recurrent word combinations (Altenberg, 1998; De Cock, 1998); fixed expressions and idioms (Moon, 1998); lexical bundles (Biber, et al., 1999; Biber, et al., 2004; Cortes, 2004; Biber & Barbieri, 2007; Hyland, 2008a); repeated word combinations (Butler, 1997); collocations (Firth, 1957; Sinclair, 1991; Howarth, 1998b; Gitsaki, 1999); lexical phrases (Nattinger & De Carrico, 1992); prefabricated patterns (or prefabs) (Granger, 1998); formulaic sequences (Wray, 2002; Jones & Haywood, 2004; Schmitt & Carter, 2004). All these studies describe multi-word sequences in different terminologies making use of different criteria and identifications and thus they offer different point of views on the use of these sequences. Some research describe these formulaic sequences as idiomatic (Moon, 1998) whereas other studies focus on the multi-word sequences which are non-idiomatic (Biber et al., 1999; Cortes, 2004, 2006; Biber & Barbieri, 2007). Therefore, there is much disagreement across the emprical studies on the terms, characteristic features and identification methods of multi-word combinations. Biber et al. (2004, p.372) summarizes the criteria empirical studies handle through their research as follows:

- "the research goals adopted: describing the full range of multi-word sequences vs. describing a small set of important sequences;
- the criteria used to identify multi-word units: perceptual salience, frequency criteria or other;
- the formal characteristics of the multi-word units studied: continuous sequences, discontinuous frames, or lexico-grammatical patterns; two word collocation or longer sequences;
- the text samples drawn on: ranging from a few texts to a very large corpora;

- whether or not register comparisons are made: many studies disregard register completely; others analyse only spoekn or written texts; a few studies compare multi-word unitsacross different registers"

Although all the studies define multi-word combinations in different terms using different criteria and identifications, it has been widely agreed that these expressions constitue a great proportion of spoken and written discourse. This finding is in line with the *idiom principle* of Sinclair (1991), who was among the first to demonstrate how corpus-driven analysis reveals the fundamental place of multi-word combinations in language use. The frequent use of these expressions in language led him to the creation of two radical concepts; the *open-choice principle* and the *idiom principle* (Sinclair, 1991, 2004). The open-choice principle signifies terminological tendency whereas the idiom principle refers to phraseological tendency. In the open-choice principle, a word has a tendency of a constant meaning referring to the world, whereas in the idiom principle, "words tend to go together and make meanings by their combinations" (Sinclair, 2004, p.29). As a consequence, Sinclair (1991) concludes that the principle of idiom is more pervasive and elusive in language and these pre-constructed phrases are more frequently used by writers.

After these radical new findings of Sinclair (1991), multi-word combinations have been taken from the periphery to the central part of language analysis evidenced by an increasing number of empirical studies. According to Cortes (2002), these quantitative studies focus on two categories; empirical corpus-driven research of multi-word combinations (Sinclair, 1991; Butler, 1997; Altenberg, 1998; Moon, 1998; Biber et al., 1999) and the pedagogical studies of multi- word combinations (Pawley & Syder, 1983; Nattinger & De Carrico, 1992; Cowie, 1998; De Cock, 1998; Granger, 1998; Howarth, 1998a, 1998b; Gitsaki, 1999). In the corpus-based studies, scholars have revealed the principal role of multi-word combinations in language using different corpora by examining the phraseology of spoken English on the basis of recurrent word combinations (Altenberg, 1998), by reviewing the recurrent continuous and discontinuous sequences from cross-linguistic perspectives (Butler, 1997), by focusing on one of the biggest lexicographical analyses of English language, the Cobuild project (Sinclair, 1991), by investigating the frequencies, forms, and functions of fixed expressions such as collocations and idioms (Moon, 1998), by comparing the most common recurrent

sequences in conversation and academic prose (Biber et al., 1999). It has been generally agreed that these multi-word combinations, as evidenced by all these quantitative corpus-based studies, has a central role of discourse in spoken and written registers.

As for the pedagogical studies of these expression, many studies have focused on the use of different types of fixed expressions in the spoken and written production of native and non-native speakers of English (De Cock, 1998; Granger, 1998; Howarth, 1998a, 1998b; Gitsaki, 1999). Many of these studies concluded that learners' use of formulaic sequences are severely restricted and they maintain general lack of awareness of the phenemonen and thereby fail to communicate efficiently. Many of the fixed expressions used by non-native speakers sound foreign and despite the development of collocational knowledge as overall language proficiency enhances, it is important to teach the characteristics of fixed expressions such as collocations and idioms and thereby improve awareness of the potential problems in the future (Granger, 1998; Howarth, 1998a, 1998b; Gitsaki, 1999). These implications consequently confirms Granger's (1998, p.146) hypothesis which "learners would make much greater use of what Sinclair (1991) calls the open-choice principle than native speakers, who have been found to operate primarily according to the idiom principle".

The present study adopts the term of 'lexical bundle' which was first introduced by Biber et al. (1999) in the book of the *Longman Grammar of Spoken and Written English*., since these expressions distinguish from other multi-word combinations in academic writing in some ways: First, lexical bundles are extremely common, they are not idiomatic in meaning and lack perceptual salience, and these expressions generally represent incomplete structural units (Biber & Barbieri, 2007, p. 269). An in-depth definition, detailed characteristics features, grammatical structures and pragmatic functions of lexical bundles are presented in the following part.

2.2. The Definition and Characteristic Features of Lexical Bundles

The term of 'lexical bundle' was initially created by Biber, et al. (1999) in the thirteenth chapter of the *Longman Grammar of Spoken and Written English* (LGSWE). Biber et al. (1999, p. 990) describe lexical bundles as "recurrent expressions, regardless of their idiomaticity, and regardless of their structural status" and as "simply sequences of word forms that commonly go together in natural discourse". In this work, the most common recurrent sequences, that is, *lexical bundles* were compared at length by Biber

and his colleagues (1999) by using corpus-based research in two major registers – conversation and academic prose. Accordingly, this framework has been used in several subsequent research (Biber et al., 2004; Cortes, 2004, 2006; Biber & Barbieri, 2007; Hyland, 2008a; Chen & Baker, 2010). Cortes (2004, p. 400) also gives another consistent definition of lexical bundles as "extended collocations of three or more words that statistically co-occur in a register" by giving some examples of these recurrent word combinations in academic prose such as 'as a result of, on the other hand, the context of the etc.' Hyland (2008a) indicated that the significant part of fluent linguistic production is achieved by the acquisiton of lexical bundles, meaning extended collocations which appear more frequently than anticipated by chance, and aid to make meanings in specific contexts and thus contribute to the sense of coherence in a text. Biber & Conrad (1999, p. 183) identify lexical bundles as "the most frequent recurring lexical sequences …, which can be regarded as extended collocations: sequences of three or more words that show a statistical tendency co-occur." Studies investigating lexical bundles have also demonstrated that because of high frequency of them, "lexical bundles are basic building blocks for both spoken and written discourse" (Biber & Conrad, 1999, p. 188)

Among the characteristic features of lexical bundles, one distinctive characteristic feature that distinguish lexical bundles from other types of recurrent word combinations is frequency criteria. Nevertheless, the threshold frequency cut-off used to identify lexical bundles can be arbitrary (Biber et al., 2004). In the case of LGSWE, Biber et al. (1999) took a minimal frequency cut-off of at least ten times per million words for a sequence to be regarded as a lexical bundle, but a lower cut-off was used for less common for five or six-word bundles. Moreover, a sequence must occur across five different texts in order to avoid the peculiar uses by individual speakers or writers. On the other hand, Cortes (2004) and Hyland (2008a) set a minimum frequency cut-offs of twenty times per million words whereas Biber et al. (2004) have taken a more conservative approach setting a relatively high frequency cut-off point that a lexical bundle must recur forty times per million words so as to be considered as a lexical bundle.

Another prominent characteristic of lexical bundles is that lexical bundles are different from idioms. Idioms are relatively invariable expressions, which have to be learned as a whole rather than learning single words because the meaning of an idiom can be different from the individual words composing it. On the other hand, lexical bundles are the sequences of individual words which retain their own meaning. Furthermore,

lexical bundles are also more frequently used than idioms. Most idioms are rarely used in registers. Only stereotypical idioms (e.g. kick the bucket) are more frequently used in fiction (less than five per million words). On the other hand, lexical bundles should occur at least ten times per million words and across in five different texts to become a lexical bundle (Biber et al., 1999).

The last distinguishing feature of lexical bundles is that lexical bundles usually perform incomplete structural units. Biber et al. (1999) revealed that only 15% of lexical bundles in conversation and less than 5% in academic prose perform complete structural unit. Instead, "most of the lexical bundles in speech bridge two clauses (e.g. I want to know, well that's what I), while bundles in writing usually bridge two phrases (e.g. in the case of, the base of the)" (Biber et al., 2004, p. 377; Biber & Barbieri, 2007, p. 270). That is to say, in spite of their structural incompleteness, lexical bundles perform distinctive structure types depending on the registers: bundles in conversation are made up of the beginning of main clause and the beginning of a complement clause (e.g. I don't know why), whereas bundles in academic prose are generally made up of prepositional and noun phrases (e.g. the nature of) (Biber et al., 1999).

2.2.1. Grammatical structures of lexical bundles

Although a majority of lexical bundles represent incomplete structural units, lexical bundles have strong grammatical relations. Therefore, Biber et al. (1999) sorted them into categories according to several basic structural types depending on the registers: conversation (14 major categories) and academic prose (12 major categories). The structural taxonomies of Biber et al. (1999) in conversation and in academic prose indicated that the types of lexical bundles in conversation dramatically differ from the bundles in academic prose. Within conversation, approximately 90% of lexical bundles is made up of verb phrases and almost 50% of these lexical bundles start with a personal pronoun + verb phrase (e.g. *I thought it was, I don't think so*). Furthermore, another 19 % of the bundles include an extended verb phrase fragments (e.g. *have a look at, get on with it*), while 17% of the bundles contain question fragments (e.g. *do you know what, can I have a*) (Biber et al., 2004).

On the other hand, most lexical bundles in academic prose (shown in Table 2.1) are phrasal, parts of noun or prepositional phrases. "Almost 70% of the common bundles

in academic prose consist of noun phrase expressions (e.g. *the nature of the*) or a sequence that bridges across two prepositional phrases (e.g. *as a result of*)." (Biber et al., 2004, p. 382)

Table 2.1. *Structural Types of Lexical Bundles in Academic Prose*

Structure	Sample Bundles
1. Noun phrase with of- phrase fragment	*the beginning of the, the shape of the*
2. Noun phrase with other post-modifier fragments	*the way in which, the extent to which*
3. Prepositional phrase with embedded of- phrase fragment	*as a result of, in the case of*
4. Other prepositional phrase (fragment)	*at the same time, on the other hand*
5. Anticipatory it + verb / adjective phrase	*it is possible to, it should be noted that*
6. Passive verb+prepositional phrase fragment	*is shown in figure, is based on the*
7. Copula be + noun / adjective phrase	*is one of the, is part of the, is due to the*
8. (Verb phrase+) that- clause fragment	*has been shown that, that there is no*
9. (Verb/ adjective +) to-clause fragment	*are likely to be, has been shown to, to be able to*
10. Adverbial clause fragment	*as we have seen, if there is a*
11. Pronoun/ noun phrase+ be (+…)	*this is not the, there was no significant*
12. Other expressions	*as well as the, than that of the*

Source: *Biber et al., 1999, p.1014-1024*

2.2.2. Functions of lexical bundles

After the structural classification of lexical bundles, Biber et al. (2004) developed a functional distribution of lexical bundles for conversation and academic prose. Three preliminary functions were employed by lexical bundles: *stance bundles*, *discourse organizers* and *referential bundles* (shown in Table 2.2*)*. These functions were defined as (Biber et al., 2004, p. 384):

> "Stance bundles express attitudes or assessments of certainty that frame some other proposition. Discourse organizers reflect relationships between prior and coming discourse. Referential bundles make direct reference to physical or abstract entities, or to the textual context itself, either to identify the entity or to single out some particular attribute of the entity as especially important.".

Table 2.2. *Fuctional Classification of Lexical Bundles by Biber et al. (2004)*

I. Stance Bundles	II. Discourse Organizers	III. Referential Bundles
A. Epistemic stance I don't know if, I don't know how, are more likely to	**A.** Topic introduction/focus what do you think, if you look at, do you know what	**A.** Identification/focus is one of the, one of the most, one of the things
B. Attitudinal/ Modality • Desire if you want to, I don't want to • Obligation/ Directive I want you to, it is necessary to • Intention/Prediction we are going to do, it's going to be • Ability / Effort to be able to, and then we can	**B.**Topic elaboration/ Clarification On the other hand, as well as the	**B**. Imprecision or something like that, and stuff like that **C**.Specification of attributes ➢ Quantity specification have a lot of, the rest of the ➢ Tangible framing attr. the size of the, in the form of ➢ Intangible framing attr. the nature of the, in terms of the, as a result of, on the basis of **D**.Time/place/text reference ➢ Place reference in the United States ➢ Time reference at the same time, at the time of ➢ Text deixis as shown in figure ➢ Multi-functional reference the end of the, the top of the

This taxonomy was widely adopted by subsequent lexical bundles research (Cortes, 2004, 2006; Biber, 2006; Biber & Barbieri, 2007; Nesi & Basturkmen, 2009; Chen & Baker, 2010; Jablonkai, 2010; Pang, 2010; Adel & Erman, 2012). However, Taking Biber et al.'s (2004) taxonomy as a basis, Hyland (2008a) created another functional classification as three broad categories which contain research-oriented, text-oriented and participant-oriented functions, thereby adopted by some subsequent studies (Allen, 2009; Wei & Lei, 2011). The detail classification is presented in Table 2.3.

Table 2.3. *Functional Classification of Lexical Bundles by Hyland (2008a)*

I. Research-oriented Bundles	II. Text-oriented Bundles	III. Participant-oriented Bundles
A. Location at the beginning of, in the present study	**A.** Transition Signals on the other hand, in addition to the, in contrast to the	**A**.Stance features are likely to be, may be due to, it is possible that
B. Procedure The use of the, the role of the	**B**.Resultative signals as a result of, it was found that	**B**.Engagement features it should be noted that, as can be seen
C. Quantification the magnitude of the, a wide range of, one of the most	**C**.Structuring signals in the present study, as shown in figure	
D. Description the structure of the, the surface of the, the size of the	**D**.Framing signals in the case of, on the basis of, in the presence of, with respect to the	
E. Topic in the Hong-Kong, the currency board system		

As a consequence, regarding in-depth definition, distinguishing characteristic features, grammatical structures and functions of lexical bundles, it can be understood that "lexical bundles are fundamentally different kind of linguistic construct from productive grammatical constructions" (Biber et al., 2004, p. 399). Therefore, lexical bundles have been the focal part of a variety of studies which are presented in detail in the following section.

2.3.The Significance of Teaching Lexical Bundles in Academic Writing Skill

In the light of findings conducted by studies related to the lexical bundles, it has been widely agreed that lexical bundles are necessary building blocks for written discourse (Biber & Conrad, 1999; Cortes, 2006; Hyland, 2008a; Li & Schmitt, 2009). Analyses of academic corpora have demonstrated that lexical bundles are widespread in written registers (Biber et al., 2004; Biber & Barbieri, 2007). In one study, lexical bundles were found to constitute 52,3% of the written discourse (Erman & Warren, 2000). Therefore, the acquisition of these recurrent word combinations are significant for the development of academic writing skills for at least three reasons: Firstly, lexical bundles are usually repeated and an essential part of the structural material; Secondly, as they are frequently used, lexical bundles are defining markers of successful writing; Finally, these

bundles are the combination of grammar and vocabulary, thereby lexicogrammatical underpinnings of a language (Coxhead & Byrd, 2007).

According to some scholars, the frequent use of lexical bundles in academic writing signifies competent language user in writing, the absence of these bundles reflects the signal of novice writers (Haswell, 1991; Cortes, 2004; Hyland, 2008a; Chen & Baker, 2010). In this aspect, Cortes (2004) argues that a certain usage of lexical bundles is an indication of a competent language user. Similarly, Ellis, Vlach & Maynard (2008) state that frequently used lexical bundles results in a natural language. Many studies investigating the use of lexical bundles in writing -especially academic writing have demonstrated there have been differences between that learners and native speakers in terms of the usage of lexical bundles fundamental (Cortes, 2004; Hyland, 2008a; Li & Schmitt, 2009; Allen, 2009; Chen & Baker, 2010; Adel & Erman, 2012). The study conducted by Adel & Erman (2012, p. 90) concluded that "non-native speakers exhibit a more restricted repertoire of recurrent word combinations than native speakers". Furthermore, Chen & Baker (2010) argued that student academic writing showed the smallest range of referential lexical bundles and overused some expressions. Conversely, the expert writers used the widest range of lexical bundles. Cortes (2004) also indicated that students had the limited use of lexical bundles in their writing and the certain bundles employed by the students did not comply with the uses of bundles employed by native writers. Therefore, the studies outlined in this section show that the usage of lexical bundles is a problematic area for language learners in academic writing (Li & Schmitt, 2009).

In this respect, the findings revealed from these studies conflicts with Biber & Conrad's (1999, p.188) claim that lexical bundles "are so common, it might be assumed that lexical bundles are simple expressions, and that they will therefore be acquired easily in the natural course of language learning". The acquisition and the correct usage of lexical bundles does not seem to be a natural procedure (Cortes, 2006). In spite of the pervasiveness of these expressions in academic prose, non-native writers have difficulty in using the lexical bundles. Therefore, exposure to the use of these expressions in reading materials is not adequate for students to acquire appropriate and active use of the lexical bundles in their writing (Cortes, 2006). In this aspect, Cortes (2004, 2006) suggested that a possible reason of learners' avoidance of using lexical bundles and divergence of lexical

bundles between learners and native writers might have derived from a lack of formal instruction of the target bundles in their academic writing.

As a consequence, it has been agreed that the appropriate use of lexical bundles promotes academic writing skills; on the other hand, the absence of these expressions may result in insufficient writing (Jones & Haywood, 2004). So, one way to acquire these recurrent expressions is the explicit instruction the studies on which will be presented in the following section.

2.4.Explicit Instruction on Lexical Bundles Acquisition

Along with the appearance of nativist and cognitive theories of language, explicit and implicit teaching distinction have come into existence in language teaching. On the one hand, according to Krashen in the Natural Approach, "formal instruction is pointless and even impedes acquisition" (Lewis, 1997, p. 52) as acquisition is an unconscious process containing the natural development of language proficiency (Richards & Rodgers, 2001). On the other hand, Lewis (1997) in the Lexical approach argued that explicit teaching helps to notice the language which is necessary to understand the input and transfer to an intake.

There has been much agreement among scholars about the positive effect of explicit instruction on language learning. By comparing the explicit and implicit instruction, Ellis (2008, p. 438) suggested that explicit instruction occurs when "learners are encouraged to develop metalinguistic awareness of the rule. This can be achieved deductively". On the other hand, implicit instruction means enabling learners to inductively infer rules without awareness. Moreover, Long (1983) ,after reviewing 13 early studies of formal instruction, concluded that explicit instruction is useful for children and adults; for different levels of students and in acquisition-rich as well as acquisition-poor settings.

Nevertheless, in spite of the growing interest and knowledge about multi-word combinations, there have been little improvement on applying the new sights to the teaching of these sequences in EFL classes (Jones & Haywood, 2004). Therefore, due to the lack of research on ESL and EFL learners' acquisition of lexical bundles in writing production, the field made use of the field of vocabulary acquisition for guidance on how to teach lexical bundles (Jones & Haywood, 2004; Schmitt, et al., 2004). Since it is evident that formulaic sequences are acquired incrementally (Schmitt, 2000; Schmitt et

al., 2004; Li & Schmitt, 2009; Čolović-Marković, 2012), which is similar to the way vocabulary is acquired (Nation, 2001).

The literature on explicit vocabulary instruction showed that formal instructional treatments had significant gains in learners' vocabulary and collocation knowledge and some words need to be taught in significant time and attention through formal instruction. Moreover, explicit instruction has a valuable place in L2 teaching and it can be effective in a systematic manner and meaningful contexts (Laufer, 1994; Paribakht & Wesche, 1997; Laufer & Shmueli, 1997; Zimmerman, 1997; Coxhead, 2000; Schmitt, 2000; Nation, 2001; Seesink, 2007).

Laufer (1994) argues that the amount of exposure in L1 is different from that of L2. Therefore, the lexical improvement in foreign language learning is not similar to one's first language acquisition. Due to the limited vocabulary exposure (when compared to L1), explicit vocabulary teaching is a requirement to make up for the inadequate exposure. Therefore, at the end of her study, she concludes that "if explicit vocabulary teaching became an integral part of a written proficiency course, the lexical profiles of the students might be more impressive at the end of such a course" (Laufer, 1994, p. 31). Similarly, Schmitt (2000, p.137) supporting explicit teaching indicates that "Explicit teaching and incidental learning complement each other well, with each being necessary for an effective vocabulary program". Likewise, Coxhead (2000, p. 228) argues that "the direct learning and the direct teaching of the words in the Academic Word List (AWL) also have value" by adding that lessons which include direct teaching to language features lead to better learning gains than the lessons including merely incidental learning (Ellis, 1990; Long, 1988, as cited in Coxhead, 2000, p. 228).

Similarly, Nation (2001, p. 23) recommended that words might be acquired through "direct teaching, direct learning, incidental learning and planned meetings with the words". In a larger context, by empasizing the major differences between native and non-native language learners Nation (2001), favoring the explicit vocabulary instruction, indicates that firstly, high frequency of words, which are made up of a small number of words are so important for language use. Therefore, explicit instruction is feasible to teach these words. Secondly, native language learners have more opportunities than non-native learners in terms of transfering input to output. That is to say, non-native language learners do not have rich opportunities. Direct teaching could raise such opportunities by adressing to their own proficiency levels. Lastly, since non-native learners have less time

as they launch their language learning procedure later (i.e. around the age of seventeen or eighteen) than native language learners, direct teaching of vocabulary can speed up the their learning procedure.

Explicit instruction, according to the researcher, might have a consciousness-raising effect on learners by increasing learners' awareness of particular words. That is to say, it can facilitate *noticing*, which is the first of three major pyschological conditions that Nation (2001) explains for a single word (also lexical bundles) to be acquired. Noticing takes place when a word is highlighted saliently in a text input. Noticing includes decontextualisation, which takes place when "the learners give attention to a language item as a part of the language rather than as a part of a message" (Nation, 2001, p. 99). Looking up dictionary, guessing from the context, deliberately studying a word all result in noticing (Jones & Haywood, 2004). The second psychological process is *retrieval*, which may lead to a word being recalled. Retrieval might be divided into two categories; receptive retrieval (i.e., perceiving the form and retrieving its meaning when the word is met in reading or listening) or productive retrieval (i.e., wishing to communicate the meaning of the word and retrieving it in speaking and writing) (Nation, 2001). When a word has been noticed and retrieved, the last process is *creative / generative use*, which occurs when previously encountered words are used in different ways from the previous meaning of the word. Generative use also can be receptive (i.e. meeting a word used in new ways in listening and reading) or productive (i.e. producing new ways of a word in speaking or writing). Negotiation, role-play or retelling can be given as examples for generative use (Nation, 2001). The activity types used in three major psychological conditions are presented below: (shown in Table 2.4.)

Table 2.4. *Activity Types used in Three Major Psychological Processess by Nation (2001)*

Noticing Activities	Definitions, glosses, highlighting, unknown words in salient positions, negotiation
Retrieval Activities	Retelling spoken or written input
Generative Activities	Role play based upon written input, retelling without the input text, brainstroming, negotiation, writing a sentence using given words, writing a composition

As well as used for lexical bundles in subsequent studies (Jones & Haywood, 2004; Neely & Cortes, 2009; Salazar, 2014; Peters & Pauwels, 2015), the researchers made use of corpus-based activities for noticing or generative use for teaching vocabulary or collocations (Sun & Wang, 2003; Chan & Liou, 2005; Chujo, Utiyama & Miura, 2006; Jafarpour & Koosha, 2006; Binkai, 2012; Salazar, 2014). According to the findings obtained from the studies indicated that corpus-based activities have a significant effect on teaching vocabulary or collocations in language classrooms. Similarly, Jones & Haywood (2004, p. 272), supporting concordancing tasks, indicate that "the use of concordance texts could be extremely helpful since they allow multiple encounters with a lexical item in a variety of contexts […] It requires a deep and thoughtful level of mental processing". Concordancing enables learners the chance of noticing or generative use by including many respects of a lexical item (p. 272). In some studies, the other activities such as fill in the gaps and rephrasing activities were also used for retrieval activities (Neely & Cortes, 2009; Peters & Pauwels, 2015); and substitution tasks and use in a sentence were used for generative use (Salazar, 2014; Peters & Pauwels, 2015).

Under the assumption that processes involved in learning lexical bundles are similar to the processes involved in learning a word, few studies were carried out in order to reveal the effectiveness of explicit instruction on ESL / EFL learners' receptive and productive abilities in written tasks in terms of Nation's (2001) psychological processes (Jones & Haywood, 2004; Schmitt et al., 2004; Čolović-Marković, 2012; Peters & Pauwels, 2015). The findings from some studies revealed that there was a statistically significant improvement in the participants' knowledge of formulaic sequences both receptively and productively in controlled situation. Other studies showed that although the participants had shown greater awareness of formulaic sequences, there was a slight improvement on cued production, almost no improvement on free production of multi-word units.

In the following part, corpus-based studies on lexical bundles and studies related to explicit instruction on teaching lexical bundles in terms of writing were discussed in detail.

2.5. Survey of Studies on Lexical Bundles

2.5.1. Corpus-based studies on lexical bundles

This section presents corpus-based studies on lexical bundles and studies on pedagogical aspect of lexical bundles as well as the studies of Turkish writers. Table 2.5 lists prominent coupus based studies in company with their focus of the study and research corpus.

Table 2.5. *Prominent Corpus-based Studies on Lexical Bundles*

Researcher(s)	Year	Focus of the Study	Corpus
Biber, Johansson, Leech, Conrad, & Finegan	1999	Lexical bundles in two registers: conversation and academic prose	LSWE Corpus
Cortes	2004	Lexical bundles in published and student disciplinary writing at three levels	Professional writings and student writings
Biber, Conrad & Cortes	2004	Lexical bundles in classroom teaching and textbooks	T2K-SWAL Corpus
Biber & Barbieri	2007	Lexical bundles in university spoken and written registers	T2K-SWAL and LSWE
Hyland	2008a	Lexical bundles and disciplinary variation	Researcharticles, doctoral dissertations and Master theses
Hyland	2008b	Academic clusters in published and postgraduate writing	Researcharticles, doctoral dissertations and Master theses
Allen	2009	Lexical bundles in learning written discourse	ALESS Learner Corpus
Byrd & Coxhead	2010	Creating a highly important list of lexical bundles for teachers	414 academic texts in four disciplines
Chen & Baker	2010	Lexical bundles in L1 and L2 academic writing	FLOB and BAWE
Simpson-Vlach & Ellis	2010	Pedagogically useful list of formulaic sequences for academic speech and writing	MICASE, BNC and Hyland's (2004) research article corpus
Wei & Lei	2011	Lexical bundles in academic writing of Advanced Chinese EFL learners	Doctoral dissertations and published journal articles
Adel & Erman	2012	Lexical bundles in academic writing by native and non-native speakers	SUSEC
Martinez & Schmitt	2012	A Phrasal Expression List	BNC

Among the studies, Biber et al. (1999) was the first to investigate the use of lexical bundles in terms of two registers; conversation and academic prose. In this research, through corpus-based research, they have defined and compared the most frequent lexical bundles in academic prose and in conversation in the Longman Spoken and Written English Corpus (LSWE), along with a structural and grammatical classifications. The results indicated that there have been striking differences between conversation and academic prose in terms of the use of lexical bundles. Lexical bundles are much more common in spoken discourse than written discourse. Furthermore, the structural types of lexical bundles in conversation differ from those in academic prose. In conversation, the majority of lexical bundles are originated from a pronominal subject followed by a verb phrase + the beginning of complement clause, such as *I don't know why*. However, in academic prose, lexical bundles are parts of noun phrases or prepositional phrases, such as *the nature of the*. Biber et al. (2004, p. 373) argue that this research was prominent in some aspects:

> "1. it adopted a register perspective and explicitly compared spoken and written registers (conversation and academic prose);
> 2. it was based on empirical analysis of large corpora (5 million words for each registers);
> 3. it relied exclusively on frequency criteria for the identification of multi-word units;
> 4. it focused on longer multi-word units than in most previous studies: 4-5 and 6 word sequences".

Expanding this study, Biber et al. (2004) investigated the use of lexical bundles in two additional registers: classroom teaching and textbooks. They compared the lexical bundles in these two registers with those found in conversation and in academic prose. They extended the structural classification of lexical bundles adding a functional taxonomy which contains stance bundles, discourse organizers and referential expressions. At the end of the study, it was concluded that classroom teaching had a combination of oral and literate bundles containing more stance bundles and discourse organizers than those in conversation, while at the same time, containing more referential bundles than in academic prose. The analysis revealed that lexical bundles are distinctive linguistic constructs.

By increasing the number of registers, Biber & Barbieri (2007) expanded Biber and his colleagues' research (1999, 2004) by investigating lexical bundles in a wide range of spoken and written registers (9 types); classroom teaching, classroom management,

office hours, study groups, service encounters for spoken registers; textbooks, academic prose, course management and institutional writing for written registers. The findings revealed that lexical bundles fundamentally differ from other lexico-grammatical linguistic structures in terms of physical mode (spoken/ written differences) and communicative purposes (Biber & Barbieri, 2007). The grammatical features are affected by phsical mode, whereas the use of lexical bundles are affected by mode and communicative purposes. Furthermore, within written registers, lexical bundles are "rare in the academic written registers" but "more common in the written non-academic registers than in any other university register" (Biber & Barbieri, 2007, p. 281-282), differing from the research of Biber et al (2004) which indicates lexical bundles were more widespread in spoken registers than in written registers.

As well as the studies focusing on the use of lexical bundles in different registers, among the studies on comparing professional and student writing, Cortes (2004) investigated lexical bundles in order to enhance the understanding of functions of these recurrent word expressions by comparing bundles utilized by professional authors in history and biology and by students at different proficiency levels in these two disciplines. The first step was collecting the corpus of published writing including lexical bundles (called target bundles) employed by professional writers. The second step was collecting student writings in these disciplines at three levels such as undergraduate lower division, undergraduate upper division and graduate level. The findings revealed that learners seldomly used these target bundles in their writing. Furthermore, the particular bundles used by students did not comply with the bundles of published writers.

Similarly, Hyland (2008a) investigated the structures and functions of lexical bundles (four-word lexical bundles) in the corpus of research articles, doctoral and Master's theses in the disciplines of Electrical Engineering, Biology, Business Studies, Applied Linguistics in order to find out whether there was a disciplinary diversity in the frequencies and uses of lexical bundles. Moreover, his main aim was to find out "the extent to which phraseology contributes to academic writing by identifying the most frequent 4 word bundles in the key genres of four disciplines" (Hyland, 2008a, p. 19). The researcher set the minimum frequency of 20 times per million words and lexical bundles were structurally and functionally classified according to their grammatical types and meanings in the text. The findings gathered from study demonstrated that there were

significant distinction in the frequency of forms, structures and functions of lexical bundles across the disciplines supporting the studies by Cortes (2004) and Biber (2006).

Like the research of Cortes (2004), Hyland (2008b) also revealed that there have been significant differences between student writing and professional writing in terms of structure and functions of lexical bundles identifying "the research articles, for example, contained far fewer clusters and far fewer different clusters overall …., they revealed more participants strings and included a far higher proportion of text-oriented clusters" (Hyland, 2008b, p. 59). On the other hand, master theses completely reflected the opposite patterns. The researcher concluded that clusters have an important role in author experience and expertise at different levels.

Likewise, Allen (2009) also examined the frequency and the type of lexical bundles in the Active Learning of English for Science Students (ALESS) Corpus in order to focus on accuracy, structures and functions of lexical bundles in learner writing. ALESS learner corpus includes 847 final research papers which are the final product of a writing programme. Each paper contains an abstract, introduction, method, results, discussion and conclusions sections. Findings from the study revealed that there was a dramatical convergence between lexical bundles used by learners and professional writers. Furthermore, the grammatical accuracy was high which might be derived from revising and editing that learners carried out in the peer review, peer conferencing and individual review. As for the grammatical stuructures of lexical bundles, noun phrase constructions, *-NP + of-* were overused by the learners.

Apart from the studies on lexical bundle use in registers and learner writing, the studies focusing on native and non-native academic writing should be mentioned here. Chen & Baker (2010) compared the usage of lexical bundles in native and non-native speakers academic writing in order to find out the potential trouble spots in SLA. Qualitative and quantitative data analyses were implemented on three corpora so as to reveal the differences and similarities in the use of lexical bundles at different levels of writing proficiency. The learner corpus was made up of writing from L1 Chinese learners of L2 English whereas other two corpora were made up of L1 writing from native academicians and university students. The corpora were Freiburg-Lancaster-Oslo/Bergen (FLOB) corpus and British Academic Written English (BAWE) corpus. At the end of the study, the findings revealed that there were significant differences and similarities between native and non-native academic writing. The use of lexical bundles in native and

non-native students academic writing were similar, which included more VP-based bundles and discourse markers than native academic writing, “which appears to be a sign of immature writing” (Chen & Baker, 2010, p.44). On the other hand, native academic writing reflected more NP-based bundles and referential bundles. Furthermore, native student writing had the “control of cautious language in native professional writing”, (Chen & Baker, 2010, p.44) whereas non-native writing underused some high-frequent lexical bundles of native academic writing and overused certain lexical bundles which were rarely used in native writing.

Another study on non-native academic writing was conducted by Wei & Lei (2011) investigating the use of lexical bundles in the academic writing of advanced Chinese EFL learners. The corpora included 20 doctoral dissertations in the discipline of Applied Linguistics in the years between 2004-2009, and 120 published articles of six SSCI journals of Applied Linguistics in the years between 2004-2008. The researchers investigated four-word bundles by taking a conservative approach of cut-off of frequency (20 times per million words). The findings collected from the study demonstrated that advanced learner writers made use of much more lexical bundles and much more varied lexical bundles in their academic writing than professional writers. As for the structural use of lexical bundles, it has been concluded that advanced learners used “similar amount of prepositional phrases, noun phrases, be+ noun/ adjectival phrases and other structures of bundles to that of professional writers” (p. 164). As for the functional usage of lexical bundles, advanced Chinese EFL learners used the similar amount of research-oriented and text-oriented bundles with published writers, but they used less participant-oriented bundles compared to professional writers. The researchers ultimately concluded that not all types of lexical bundles can be achieved easily in the natural process of language learning. Therefore, unconscious learning is not enough for learning these expressions (Cortes, 2004). Wei & Lei (2011) suggested to make learners ‘notice’ these recurrent word combinations, which is the suggestion of Cortes, (2004).

Similarly, Adel & Erman (2012) investigated the use of English-language lexical bundles in advanced learner writing by L1 speakers of Swedish and native speakers who were undergraduate students of linguistics. The researchers implemented quantitative and qualitative data analysis. The corpus material was from Stockholm University Student English Corpus (SUSEC), which was made up of 325 essays including over one million words. The academic writing of the corpus was collected from Swedish and British

undergraduate linguistic students at different levels. The results of the study showed that non-native speakers showed an inclination to use more limited and less diversed lexical bundles than native speakers. More varied lexical bundles used by native speakers were "in unattended 'this' constructions, existential 'there' constructions, hedges and passive constructions" (Adel & Erman, 2012, p. 90).

Apart from the studies on the use of lexical bundles in different registers, in terms of student-professional writing and native-nonnative academic writing, there have been studies which set out to create a list of lexical bundles on pedagogical aspect of these expressions. The first study conducted by Byrd & Coxhead (2010) investigated to explore how lexical bundles function across different disciplines such as Arts, Commerce, Law, and Science, each of which has seven subject areas. The corpus used for this study was the corpus created for the improvement of the Academic Word List (Coxhead, 2000). The corpus was made up of 414 texts. The texts were classified into theree categories; short texts (2000-5000 running words); medium length texts (5000-10,000 running words) and long texts (over 10,000 running words). Each of seven sub-fields has 875,000 running words. The corpus included journal articles, book chapters, course workbooks, laboratory manuals, and course notes. Byrd and Coxhead (2010) constructed a list of lexical bundles used in the disicplines of Arts, Commerce, Law and Science. Then, the frequency of each lexical bundle was measured in each disciplines by comparing the differences and similarities across disciplines. The cut-off point was at least 20 times per million words. The findings revealed from the study demonstrated that 73 bundles are shared across all four disciplines, however; these lexical bundles do not occur in equal numbers in each of the disciplines. Therefore, the scholars reduced this list by choosing only the bundles that make up at least 10% of each discipline. The list was decreased to the number of 35 bundles. Then, the researchers compared this list of the 35 "shared and highly frequent bundles" (p. 39) with the lists of lexical bundles published by Biber et al. (2004) and Hyland (2008a). As a result, Byrd & Coxhead (2010) created a list of 21 lexical bundles "that can be viewed by teachers and material writers as highly important and fairly stable across a variety of types of academic prose" (p.39).

Similarly, another study conducted by Simpson-Vlach & Ellis (2010, p. 478) creating "an empirically derived and pedagogically useful list of formulaic sequences for academic speech and writing",which is called Academic Formulas List (hereafter AFL). The AFL contains common lexical bundles in academic spoken and written corpora. The

target corpora of academic genres included academic speech corpus and academic writing corpus. Academic speech corpus included Michigan Corpus of Academic Spoken English (MICASE) and British National Corpus (BNC) files of academic speech; the academic writing corpus included Hyland's (2004) research article corpus and BNC files sampled across academic disciplines. This list is produced after the examination of a 2.1 million words of written and 2.1 million words of spoken academic discourse across a variety of disciplines. The speech corpora were classified into five sub-corpora such as Humanities and Arts, Social Sciences, Biological Sciences, Physical Sciences, and non-departmental/other; the writing corpus was classified into four sub-corpora such as Humanities and Arts, Social Sciences, Natural Sciences, Technology and Engineering. The frequency cut-off was 10 times per million words just as the frequency cut-off point of Biber et al.'s (1999) research. Then, the researchers selected a subset of 108 of the academic formulas; 54 of them were of the spoken and 54 of them were of the written list as a result of n-gram length (3, 4, 5) frequency band (high, medium, and low) and mutual information (MI) band (high, medium and low). The twenty experienced English for Academic Purposes (EAP) instructors were asked to rate the formulas according to the three factors; whether the phrases were a formulaic sequences or not, whether these formulas have "a cohesive meaning or function as a phrase" and whether these formulas were worth teaching or not (Simpson-Vlach & Ellis, 2010, p.496). At the end of the research, the researchers presented AFL list dividing into three sublists; the Core AFL, Spoken AFL and Written AFL. It lists formulaic sequences that "are common in academic spoken and written language, as well as those that are special to academic written language alone and academic spoken language alone" (p. 487).The formulas were grouped into three main functional groups; referential, stance expressions and discourse markers. Their conclusions also contrasted with Hyland's (2008) research which indicated that lexical bundles were not common to multiple disciplines, and thus suggested a strictly discipline-bound pedagogical approach to lexical bundles giving importance to disciplinary variation. Nevertheleless, Hyland (2008) only focused on four-word lexical bundles, whereas Simpson-Vlach & Ellis (2010) mainly focused on three-word lexical bundles. Furthermore, while Hyland (2008) set a higher cut-off point (20 times per million words), Simpson-Vlach & Ellis (2010) set lower frequency cut-off point (10 times per million words). Therefore, their research was made up of core lexical bundles common to all academic disciplines.

The last study conducted by Martinez & Schmitt (2012) presented a Phrasal Expressions List (Phrase List). The need for formulaic sequences in the lexicon is obvious for the pedagogical aspect. Therefore, the writers created a list of recurrent word combinations that had a pedagogical purpose similar to the wordlist of Academic Word List (Coxhead, 2000). The researchers identified 505 lexical bundles at the end of the research.

Nevertheless, the research on corpus-based studies of Turkish writers' usage of lexical bundles were quite restricted. The studies focusing on lexical bundles were shown in Table 2.6.

Table 2.6. *Turkish Corpus-based Studies on Lexical Bundles*

Researcher(s)	Year	Focus of the Study	Corpus
Bal	2010	Lexical bundles in Turkish writers' research articles	200 research articles
Karabacak & Qin	2012	Lexical bundles used by Turkish, Chinese and American Students	University students' argumentative papers
Öztürk	2014	Lexical bundle use by Turkish and native English writers	Turkish and native English MA/PHD theses, native writers' research articles

The first study conducted by Bal (2010) investigated the use of lexical bundles in the research articles of Turkish writers. The corpus was made up of 200 published reserach articles in six different disciplines such as Economics, Education, History, Medicine, Physicology and Sociology. The reseracher investigated four-word lexical bundles at the frequency cut off point of 20 times per million words. At the end of the study, a total of ninety-nine lexical bundles were identified in Turkish Scholars Research Articles Corpus (TSRAC). The most frequent lexical bundles used were 'on the other hand, the end of the, as well as the, in the case of and one of the most' in TSRAC. The researcher classified these bundles structurally and functionally.

On the other hand, unlike Bal's (2010) study Öztürk (2014) investigated the usage of Turkish and native English postgraduate students' and native writers in a specific academic discipline with regard to the structures, functions and frequency of lexical bundles using the control corpus. The corpora included 150 texts collected from Turkish and English posgraduate students' MA/PhD theses and published research articles of native writers between the years 2003-2013. The cut-off point was 25 times per million

words. The results of the study showed that Turkish postgraduate students made use of lexical bundles more frequently than native students and writers. Nevertheless, Turkish postgraduate students overused most of the lexical bundles.

Unlike these two studies (Bal, 2010; Öztürk, 2014) on the use of lexical bundles by advanced Turkish writers, Karabacak & Qin (2012) investigated the comparison of the use of lexical bundles in the argumentative papers of three groups of university writers; Turkish, Chinese and Americans. The corpora imcluded the argumentative papers of Turkish sophomores, Chinese sophomores and American freshman students as a learner corpus and New York Times articles as a reference corpus. The findings gathered from the study indicated that even advanced English learners had difficulty in acquiring some lexical bundles through simple exposure. The researchers suggested that explicit teaching of lexical bundles might be a solution to exceeding their acquisition procedure.

As a result, there have been numerous studies of corpus-based analysis of lexical bundles which demonstrated that non-native academic writers have difficulty in acquiring native-like lexical bundles (Perez-Llantada, 2014). Studies showed that there have been a dramatical convergence between non-native writing and native writing: non-native learners overused or underused some lexical bundles in their academic writing and they used more limited and less diversified lexical bundles or the target bundles used by students were not similar to the bundles utilized by professional writers (Cortes, 2004; Hyland, 2008b; Allen, 2009; Chen & Baker, 2010; Adel & Erman, 2012; Öztürk, 2014). Most studies showed that such expressions are not acquired in a natural way, even simple exposure to the lexical bundles is not sufficient for learners to use the lexical bundles in an active way (Cortes, 2004, 2006; Wei & Lei, 2011; Karabacak &Qin, 2012). Even advanced non-native English learners and second language learners have considerable problems achieving these expressions (Bishop, 2004; Karabacak & Qin, 2012).

Therefore, formal instruction of lexical bundles has been one of the solutions to enhancing non-native writers' acquisition process of lexical bundles in their writing. If the explicit instruction is carried out including a deep level of processing, acquisition will be promoted (Jones & Haywood, 2004). Therefore, the studies which were explained hereafter focused on pedagogical instead of theoretical perspective of lexical bundles (shown in Table 2.7).

2.5.2. Studies on pedagogical aspect of lexical bundles

One of the most important studies on the pedagogical aspect of lexical bundles conducted by Bishop (2004) investigating whether participants actually notice unknown formulaic sequences less often than single word synonyms, whether cognitive processes related to noticing words are different from those related to formulaic sequences and whether making formulaic sequences typographically salient in a reading text increased noticing and comprehension. Two experiments were implemented at upper-intermediate learners of English in the ESL program at University of Wisconsin-Madison. The first experimented was carried out with 44 participants and the other experiment had 35 participants.

The research made use of Collin's Wordbanks Online Corpus to identify the frequency of target formulaic sequences and Test of English as a Foreign Language (TOEFL) reading subtest to reveal the reading levels of the participants. Customized computer programs were used for the vocabulary pre-test. The pre-test was the modified scale of Parikbaht and Wesche's (1993) vocabulary knowledge (VKS). The treatment used both within-participants and between-participants designs. A one-way ANOVA, t-test and a paired sample t-test were used as statistical analysis for the study. The experimental results of the study showed that participants noticed significantly fewer target formulaic sequences than single word synonyms (e.g. eliminate vs. do away with). Furthermore, it was found that there was a significant relationship between the frequency and the number of words students knew, no corresponding relationship for the formulaic sequences. It was also concluded that participants had a less inclination to notice unknown formulaic sequences than unknown words while reading the text. Additionally, making target formulaic sequences typographically salient significantly increased noticing but reduced comprehension of the text. Nevertheless, the study does not provide any evidence of increasing productive knowledge of formulaic sequences.

Table 2.7. *Studies on Pedagogical Aspect of Lexical Bundles/ Formulaic Sequences*

Researcher(s)	Year	Focus of the Study	Findings
Bishop	2004	The noticing of formulaic sequences by second language readers.	Making formulaic sequences typographically salient increased noticing by second language learners.
Jones& Haywood	2004	Enhancing the acquisition of formulaic sequences by explicit instruction	The participants had shown greater awareness of formulaic sequences, but there was slight improvement on cued production, no improvement on free production of formulaic sequences.
Schmitt, Dörnyei, Adolphs& Durow	2004	The acquisition of formulaic sequences and individual factors	The findings from the study indicated that there was a statistically significant development in the participants' knowledge of formulaic sequences both receptively and productively.
Cortes	2006	Teaching lexical bundles in the disciplines	The findings revealed no differences between pre-post instruction about the production of lexical bundles but there was an awareness on lexical bundles.
Li &Schmitt	2009	The acquisition of lexical bundles in academic writing	It was found that the participant learned a great many of lexical bundles and gained confidence in using these expressions as a result of the treatment.
Neely & Cortes	2009	Analyzing and teaching lexical bundles in academic lectures	It was found that instructors should teach lexical bundles presenting all types of their functions in context
Čolović-Marković	2012	The effects of explicit instruction of formulaic sequences on ESL writers	the explicit instruction of formulaic sequences had significant effect on the students' performances of production of academic formulaic sequences in a controlled situation and on the production of topic-induced formulaic sequences in controlled and in uncontrolled situations.
Kazemi, Katiraei & Rasekh	2014	The impact of teaching lexical bundles on improving writing ability	The results indicated that the participants had a significant improvement on their wrting scores from the pre-test to post-test in spite of the short treatment period. The participants attribute great importance to teaching of lexical bundles.

Table 2.7. *(Continued) Studies on Pedagogical Aspect of Lexical Bundles/ Formulaic Sequences*

Nguyen	2014	The acquisition of formulaic sequences in ESL learners	The findings showed that three types of intervention had a positive effect on the learners' receptive and productive skills of acquiring formulaic sequences.
Salazar	2014	corpus investigation and pedagogical applications of lexical bundles	The writer presents a corpus-based analyses of lexical bundles in native and non-native corpora, referring to usage, functions and structures of lexical bundles. Furthermore, she presents a practical list of lexical bundles worth teaching and a series of teaching activities of lexical bundles demonstrating how the target lexical bundles could be integrated into teaching materials for non-native learners who were willing to develop their writing skills.
AlHassan&Wood	2015	The effectiveness of focused instruction of formulaic sequences on promoting second language learners' academic writing skills	Explicit instruction of formulaic sequences resulted in a statistically significant increase in the number of target formulaic sequences in the academic writings of second language learners. It enabled students to acquire and internalize the formulaic sequences
Latifi & Afraz	2015	The effect of the explicit instruction of lexical bundles on improving writing skills of EFL learners	Explicit instruction was quite helpful for students to progress their writing skills.
Peters & Pauwels	2015	Vocabulary-focused instruction on learning academic formulaic sequeneces	Vocabulary-focused instruction had a significant difference in students' awareness, cued output and spontaneous use of formulaic sequences. The cued output activities might be more beneficial not only on the recognition skills but also on the productive skills than the awarenes-raising activities.

Another study focusing on the acquisition of some target formulaic sequences receptively and productively in ESL context was conducted by Schmitt, Dörnyei, Adolphs & Durow (2004) attempting to define the acquisition of some target formulaic sequences under semi-controlled situations. Additionally, the researchers also investigated whether or not the individual factors (i.e. age, gender, language aptitude and motivation) would affect the acquisition of formulaic sequences. The researchers selected the target formulaic sequences considering three criteria; the degree of frequency, relation to academic writing in EAP teaching environment, useful for students. They developed elicitation instruments for receptive and productive measures of the target formulaic sequences together with language aptitude and motivation. For the receptive measurement the multiple-choice test format and for the measurement of productive skill, C-test format was applied to the participants The pariticipants in the study were made up of professional students in the EAP program at the University of Nottingham. They came from different language backgrounds such as Chinese, Japanese etc. The treatment included a period of two-month (for 62 students) and three-month of exposure (for 32 students) to the target formulaic sequences as participants were enrolled in either two-month or three-month EAP course. The findings from the study indicated that there was a statistically significant development in the participants' knowledge of formulaic sequences both receptively and productively. As a result, the findings indicated that learners had a considerable knowledge of the target formulaic sequences before the treatment and they improved their knowledge after the treatment. However, the researchers could not link this improvement to the result of instruction itself as there were two variables such as explicit instruction and intense exposure. Although the study provided evidence of improvement on the productive knowledge of formulaic sequences in controlled situations, there is no evidence of promoting the productive knowledge of these expressions in uncontrolled situations. Additionally, the aptitude and motivation factor did not have an significant effect on the acquisiton of the formulaic sequences.

On the other hand, unlike the aforementioned studies, Li & Schmitt (2009) carried out a longitudinal case-study in order to explore whether there would be a longitudinal improvement of formulaic sequences in L2 academic writing and whether the participant would be more confident in the use of formulaic sequences over the academic year. The participant was 29 years old and had studied English for 10 years. The treatment was to

analyze her writing assignments (8 assignments and a dissertation) for lexical bundle usage. Furthermore, she was interviewed after each assignment about how she felt while learning these phrases and her confidence level while using these formulaic sequences in her writing. The findings indicated that she learned a great many of lexical bundles (166 new bundles) and she also gained confidence in using these expressions as a result of the treatment. However, the researchers concluded that she heavily used a constricted range of formulaic sequences, which sometimes made her writing non-nativelike. Several previously known lexical bundles continued to be a problematic area throughout the course which contained direct feedback. However, the most important finding of this study was that the formulaic sequences are found to be acquired incrementally, which has a similar way to the acquisition of single words (Nation, 2001).

Similarly, Nguyen (2014) investigated the effects of three types of explicit instruction on the acquisition of formulaic sequences in ESL context. The participants were Mandarin speaking graduate students who had a TOEFL score ranging from 90-110. The participants were randomly assigned to four groups; one control and three experimental groups. The treatment groups received three types of intervention; a. Input Enhancement together with Explicit instruction; b. Collaborative gap-fill tasks; c. Spot-the-difference tasks whereas the control group received no instruction on formulaic sequences. The instruments used in the study a Vocabulary Knowledge Scale and an Awareness test as pre-tests and a cued gap-fill test, multiple-choice test and the same Awarenes test used as immediate and delayed post-tests. Findings obtained from the study demonstrated that the participants in three treatment groups showed higher performance than the control group at a statistically significant level. Therefore, it can be concluded that three types of intervention had a more positive effect on the learners' receptive and productive skills of acquiring formulaic sequences than the control group. The findings showed that among three types of treatment, Gap-fill is the most benefical for the acquisition of productive knowledge of formulaic sequences. Additionally, direct instruction of formulaic sequences' meaning enabled learners to retain meaning most effectively, whereas explicit strategy teaching promoted learners' noticing ability to learn formulaic sequences.

Another study focusing on receptive and productive acquisition of target bundles in ESL context was conducted by AlHassan and Wood (2015) investigating the effectiveness of focused instruction of formulaic sequences on promoting second

language learners' academic writing skills. The participants were made up of 12 students coming from different language background such as Arabic, Spanish, Turkish and Mandarin and different proficiency levels such as lower-intermediate, intermediate and upper intermediate. The data instruments used in the study were classified into two categories; instruments used in the data collection and instruments in the training period. As for the instrument used in the data collection, the researchers designed a prompt used as pre-test, immediate post-test and delayed tests. 12 worksheets were designed for the training period based on consciousness-raising of the target formulaic sequences. Throughout the treatment, the researcher explicitly taught the participants the target formulaic sequences in a specific discipline, -Economics by benefiting from these worksheets. The findings of the study indicated that explicit instruction of formulaic sequences resulted in a statistically significant increase in the number of target formulaic sequences in the academic writings of second language learners in the post-test as compared with the pre-test results. Additionally, the researchers concluded that explicit instruction along with the intense practice not only fosters the acquisition of target bundles but also provides retention of target bundles in writing. According to the findings of the study, formulaic sequences could be seen the central part of L2 students' academic writing; thus, the study suggested L2 learners should be exposed to the in-depth knowledge of the use and functions of these expressions in academic writing. An important contribution of the finding of this research is that the researchers also investigated the effect of explicit instruction on the retention of target formulaic sequences as well as the acquisition of these expressions.

Like the studies above which measure the effect of explicit instruction on receptive and productive knowledge of target bundles in ESL context. There have been some studies related to this topic on EFL context. Kazemi, Katiraei & Rasekh (2014) examined the impact of the formal instruction of lexical bundles on developing Iranian advanced Teaching English as a Foreign Language (TEFL) students' writing skills and the attitudes of students towards the effects of the teaching of lexical bundles. The participants of the study were twenty master's (MA) students in the field of Applied linguistics. The data elicitation instruments of the study were students' writings used as pre-test and post-test, a questionnaire aiming to reveal students' attitudes towards the treatment. The treatment lasted four 90 minute sessions over the period of one month. Students were asked to write a passage about a specific topic before and after the

procedure as pre-test and post-test. In the treatment, the participants were provided the frequency, use and function of certain number of lexical bundles specific to their disciplines- the field of applied linguistics. The results collected from the study indicated that the participants had a significant improvement on their writing scores from the pre-test to post-test in spite of the short treatment period. However, the researchers attribute this result to the level of participants who were all advanced English-major EFL students. As for the results of the questionnaire, it has been concluded that even advanced learners of English are not familiar with the bundles and had no training related to the use of lexical bundles. The participants attribute great importance to teaching of lexical bundles and indicated that it is urgently needed to integrate these expressions into foreign language learning process.

Similarly, Latifi & Afraz (2015) attempted to investigate the effectiveness of the explicit instruction of lexical bundles on improving writing skills of EFL learners. 50 Iranian pre-intermediate level students were randomly divided into the two groups; experimental and control groups. The instruments used in the research were writing test as pre-test and writing achievement test as post-test. The experimental group received an explicit instruction of target lexical bundles whereas the control group received a placebo instruction on the writing skill. According to the results obtained from the study, it has been concluded that explicit instruction was quite helpful for students to progress their writing skills.

Like the aforementioned studies conducted on EFL context, Peters & Pauwels (2015) also investigated whether vocabulary-focused instruction would have an effect on boosting students' awareness and use of academic formulaic sequences. Although it can be seen as a replication study of Jones & Haywood (2004), there were some aspects differing from Jones and Haywood's (2004) study. First, the study was within-subject design, used the same pre-tests and post-tests, testing all target items in the pre-tests and post-tests etc. The participants of the study Dutch speaking EFL learners. The treatment was made up of three learning sessions which included two types of activities; recognition activities and cued output activities. The range of activities reflected to the activities proposed by Nation (2001). The recognition activities were implemented for noticing, the gap-filling and rephrasing activities for retrieval use and use in a sentence activity was for creative use of target formulaic sequences. As for the instrumentation of the study, three types of instruments were designed for the study; a recognition test, a cued-output

test and a writing test. The results obtained from the study demonstrated that a vocabulary-focused instruction had a statistically significant difference in students' awareness, cued output and spontaneous use of formulaic sequences. The findings also suggested that the cued output activities might be more beneficial not only on the recognition skills but also on the productive skills than the awarenes-raising activities. However, the authors stated that the three type of activities implemented in the study were not counterbalanced. This study mainly addressed to two of three psychological processes of Nation (2001); the noticing and retrieval. The third process (generative use) was limitedly used in this research.

In their experimental study, Jones & Haywood (2004) also carried out an exploratory research in order to investigate whether explicit instruction of formulaic sequences would have an effect on the awareness, accurate and appropppriate production of formulaic sequences and improve learners' learning strategies in an EAP context. The study lasted 10 teaching weeks with 21 students from the Centre for English Language Education at the University of Nottingham. The treatment group consisted of 10 participants whereas the control group had 11 participants. The researchers selected the target formulaic sequences in academic writing based on Biber et.al. (1999) considering the usefulness and relation to the specific language functions. The chosen expressions were taught through reading activities such as highlighted sequences in reading texts, concordance lines and corpus extracts and writing activities in the experimental group. Classroom observation and interviews were also implemented to reveal students' reactions. A pretest-posttest design were applied to identify whether there were any learning gains. The results of the study indicated that the majority of the students in the treatment group showed a significant increase in the awareness of the formulaic sequences. On the other hand, the results showed that there was a slight development in the learners' controlled production of formulaic sequences measured by C-test but no development in the learners' free production of formulaic sequences. As for the production of formulaic sequences, the findings of the study are not in line with aforementioned research (Schmitt et al., 2004; Nguyen, 2014; Alhassan & Wood, 2015; Peters & Pauwels, 2015). The researchers stated that this study had some limitations. The first limitation was time and curriculum constraints (there were only two weeks between two writing test) and the second limitation was that the repeated exposure was mainly

noticing and retrieval activities but not much generative use among Nation's (2001) three psycological aspects as there was time constraints.

Similarly, another study conducted by Cortes (2006) concentrated on the teaching of lexical bundles to university students in a writing-intensive history class. The researcher constructed five 20 minute micro-lessons in a period of ten weeks. All the students were English native speakers. These micro-lessons included exercises, contextualized examples from articles, filling the blanks etc. The instructor also made informal discussions with students to reveal their reactions to the usage of lexical bundles in writing. Like the findings of Jones & Haywood (2004), the findings of this study revealed no differences between pre-post instruction about the production of lexical bundles but there was an awareness on these multi-word combinations. Nevertheless, the researcher argued that the reason might be derived from the two factors: the length of micro-lessons which were not long enough for students to augment the productive knowledge of lexical bundles. The second factor might be the activity types, which might not be appropppriate for students to enhance the use of these expressions in their writing.

Like the studies of Jones & Haywood (2004) and Cortes (2006), Čolović-Marković (2012) also investigated the impact of the explicit instruction of formulaic sequences on second language writing. The researcher investigated whether the explicit teaching of formulaic sequences would have an effect on students' abilities to produce the target formulaic sequences in controlled (c-tests) and in uncontrolled situations (essays). As well as these aims, the researcher attempted to find out the strategies students use in producing formulaic sequences in their ESL writing through post-treatment interviews. The study was made up of a quasi-experimental design which included experimental and control groups. The study was implementd with the participants in writing classrooms in the university intensive English program. The experimental group received explicit instruction of formulaic sequences through reading and classroom discussions in order to raise their awareness and use of formulaic sequences in their writing. The control group received no explicit instruction but they worked on writing-oriented activies. The study lasted eight weeks. Both quantitative and qualitative data were collected in the study.

The results of the study indicated that the explicit instruction of formulaic sequences had significant effect on the students' performances of production of academic formulaic sequences in a controlled situation and on the production of topic-induced formulaic sequences in controlled and in uncontrolled situations but there was no effect on the

production of academic formulaic sequences in uncontrolled situation. The findings of this study were consistent with the findings of previous research (Jones & Haywood, 2004; Cortes, 2006), although the researcher argued that she attempted to eliminate the limitations of foregoing factors involved in the studies of Jones & Haywood, (2004) and Cortes (2006). The researcher argues that this result might be originated from the necessity of more exposure, more practice as well as learners' motivational factors. Furthermore, from the interview results of the study, participants reported that the type of practice including matching and c-test were beneficial but not effective enough for participants to transfer their receptive knowledge into the productive mastery of target bundles in academic writing.

Considering the importance of pedagogical aspect of lexical bundles as discussed above, two studies focused on the designing a series of teaching activities and lessons for acquisition of these expressions. The first study was conducted by Neely & Cortes (2009) invetigating the frequency of 5 topic-introducing and discourse organizing bundles identified by Biber et al. (2004) and Nesi & Basturkmen (2006) in the academic lectures of instructors and students in the Corpus of Academic Spoken English (MICASE) and the teaching applications of these five bundles (*if you look at, a little bit about, a little bit of, I want you to, and I would like you*) in academic lectures. A search was conducted for each of the five topic-introducing lexical bundles chosen for the research. As well as the frequency of these bundles, the fuctions of the bundles were examined and compared with those defined in the research of Biber et al. (2004) and Nesi & Basturkmen (2006). The data demonstrated that lexical bundles can be used in a variety of academic lectures. Additionally, it was concluded that "while a lexical bundle can have a primary function, the same bundle can be used for different functions across the span of a lecture" (Neely & Cortes, 2009, p. 29). In the direction of these findings of the study, the researchers presented possible pedagogical applications of these bundles. The study used corpus-based activities to design lessons and materials for ESL/ EFL classrooms. They created three lessons using corpora and concordance programs as the researchers thought corpus-based activities could be "effective teaching and learning tools when proper planning and instruction takes place" (Neely & Cortes, 2009, p.30). The lessons aimed at raising students' awareness, explicitly introducing lexical bundles and their functions, students becoming familiar with the form and functions of lexical bundles. It was found that instructors should teach lexical bundles presenting all types of their functions in context.

Similarly, Salazar (2014) presented a corpus investigation of lexical bundles in the first part of her work. This part included the previous research on lexical bundles and quantitative and qualitative corpus analyses of published scientific writing. Furthermore, the writer dealt with the usage, functional and structural characteristics of lexical bundles in native and non-native corpora and underscores differences between two corpora. While the first part of the work is mainly descriptive, the second part of the book is related to the pedagogical applications of lexical bundles for EAP teachers and material designers. The second part of the book included a practical list of lexical bundles worth teaching and a series of teaching activities of lexical bundles demonstrating how the target lexical bundles could be integrated into teaching materials for non-native learners who desire to develop their writing skills.

Lastly, one study conducted by Ergin (2013) in Turkey investigated the impact of explicit instruction of formulaic sequences on Turkish EFL learners' use of formulaic sequences and overall writing performance. The participants of the study were English Language Literature students whose level were upper-intermediate. Two treatment classes were included in the study. The treatment lasted four weeks. The data were gathered through pre and post-test procedure. Content analysis was conducted by counting the number of discourse markers used accurately or inaccurately. According to the results obtained from the study, the number of formulaic sequences-that is discourse markers- showed a significant increase in the post-test scores of students compared to pre-test scores. These findings suggested that the formal instruction of formulaic sequences had an effect on developing learners' usage of formulaic language and their overall writing skills.

This chapter reviewed background information to the lexical bundles, definition and characteristic features of lexical bundles. Furthermore, the grammatical structures and pragmatic functions of lexical bundles were discussed in detail. This chapter also reviewed the importance of teaching lexical bundles in writing skills and one way to acquire these recurrent expression –explicit instruction- was discussed through Nation's (2001) psychological processes which are noticing, retrieval and creative use. At the end of the chapter, the researcher dealt with the survey of studies on lexical bundles in which two categories of studies were revealed in the literature; corpus-based studies on lexical bundles and studies on pedagogical aspect of lexical bundles. Corpus-based studies demonstrated that non-native academic writers have difficulty in acquiring native-like

lexical bundles (Perez-Llantada, 2014). Studies showed that there have been a dramatical convergence between non-native writing and native writing: non-native learners overused or underused some lexical bundles in their writing and they used more limited and less varied lexical bundles or the target bundles used by students did not correspond to the bundles employed by professional writers (Cortes, 2004; Hyland, 2008b; Allen, 2009; Chen & Baker, 2010; Adel & Erman, 2012; Öztürk, 2014).

Explicit instruction was seen one of the solutions to eliminate these problems. Therefore, the studies which were later explained focused on pedagogical aspect of lexical bundles instead of theoretical perspective of lexical bundles. These studies examined the effects of explicit instruction on teaching lexical bundles/ formulaic sequences on learners' receptive and productive writing abilities. Some studies indicated that there was a statistically significant development in the participants' knowledge of formulaic sequences both receptively and productively (Schmitt et al., 2004; Kazemi, Katiraei & Rasekh, 2014; Nguyen, 2014; Peters & Pauwels, 2015; Alhassan & Wood, 2015) whereas other studies showed that the participants showed greater awareness of lexical bundles, but no significant improvement on the production of lexical bundles in their writing skills in uncontrolled situations (Jones & Haywood, 2004; Cortes, 2006; Čolović-Marković 2012). However, there have been some limitations in these studies such as short length of micro-lessons and unsuitable activities (Cortes, 2006); time, curriculum (there were only two weeks between two writing test) and repeated measure constraints (Jones & Haywood, 2004) or the necessity of more exposure, more practice and type of practice (Čolović-Marković, 2012). This present study makes an attempt to correct all the limitations of foregoing studies by *(a)* including an extended number of participants, *(b)* using the same pre- and post test procedure (receptive and productive), *(c)* offering an extended period of time (6 sessions; 180 minutes for each session), *(d)* including considerable time between pre-tests and post-tests (pre-tests administered before the treatment; post-tests administered after the treatment), *(e)* measuring the effect of time on participants' retention of the target lexical bundles, *(f)* offering a more intense practice (noticing, retrieval and generative use)

To sum up, there is not much research about the impact of explicit instruction of lexical bundles on the achievement and retention of receptive and productive knowledge of lexical bundles in academic writing abilities of EFL learners –esp. Turkish EFL learners- in the existing literature. In this case, the findings of the study are also expected

to respond the questions about the new methods of language teaching experience about lexical bundles, and this current study might answer the questions of how the lexical bundles should be taught foreign language learners in the long term to promote their academic writing abilities and thereby being expected to fill the void in the existing literature.

CHAPTER 3

METHODOLOGY

The purpose of this current study is to investigate the impact of the explicit instruction of lexical bundles through noticing, retrieval and generative activities on the achievement and retention of receptive and productive knowledge of target lexical bundles in controlled and uncontrolled situations in academic writing abilities of Turkish intermediate EFL students and to reveal students' opinions on the explicit instruction of lexical bundles in academic writing.

The current chapter presents an overview of the research design, the participants, quantitative and qualitative data collection instruments for measuring receptive and productive knowledge of lexical bundles, and the teaching procedure of explicit instruction of the target bundles.

3.1. Overview of the Research Design

The present study is a mixed methods embedded design research conducted at the School of Foreign Languages, Osmaniye Korkut Ata University in Osmaniye, Turkey. The quantitative part of the design is a within-group time series design in which participants were involved in one treatment group. The qualitative part of the study followed the quantitave part enabling the researcher provide a better understanding of the intervention by including student perpectives (Creswell, 2012).

Before the implementation of the research, pre-tests for measuring receptive knowledge (e.g. multiple choice test) and for measuring productive knowledge of students (e.g. c-test, argumentative paragraphs) were administered to the participants. After that, the instructional materials developed for the study were used during the treatment. The research lasted 6 consecutive weeks in one academic term in intermediate reading-writing class. The learning materials used in the study were three types of activities developed for this study; noticing activities, retrieval activities and generative activities (Nation, 2001). The treatment group was taught by the researcher herself. After

the treatment, the participants were given the same tests as immediate post-tests for measuring receptive and productive knowledge in controlled and uncontrolled situations and three weeks later, as delayed-post-test for measuring retention of receptive and productive knowledge in controlled and uncontrolled situations. As a qualitative data elicitation, participants were asked to answer the closed-ended and open-ended questions to reveal their opinions on the explicit instruction of lexical bundles in their writing.

3.2.Participants

The participants in the study were 30 Turkish EFL learners selected from intermediate reading-writing courses at Preparatory Classes, School of Foreign Languages at Osmaniye Korkut Ata University which is a state university in Osmaniye, Turkey. The students were majoring at the departments of Engineering Sciences such as Mechanical Engineering, Civil Engineering, Electrical and Electronics Engineering, Energy Systems Engineering and the departments of Social Sciences such as Economics, Business Administration, Management Information Systems, Public Administration and Political Sciences, International Relations etc.

At the beginning of the fall term, each student takes a standardized English proficiency placement exam for the preparatory programme. If students get a grade below the minimum scores, they are required to take an intensive English preparatory programme for a year. Yet, if students pass the language proficiency exam, they are exempted from attending this intensive English programme and they are entitled to study at their own department. According to the results of proficiency exam, students with lower than minumum scores are divided into five elementary-level classes. The students have to take twenty-four hours of English a week (four major language skills; reading-writing, speaking-listening). The learners proceed to pre-intermediate and intermediate level after successfully passing the exams in the previous level.

At the time of implementing the study in the spring term, the participants were at the intermediate-level (B1). The students' language development was checked by the progress tests administered every three weeks and mid-term exams administered regularly which assured the regular evaluation of their progress in their classes. The treatment was carried out by the researcher. Participants with the reading-writing class attendance lower than 80% were excluded from the study because their absence might have had a negative

effect on the result of the study. Therefore, there were 30 participants who took part in the study. The participants were given the purpose and design of the treatment and a 'consent form' was administered to each participant (See Appendix A). Age of the participants ranged from 19-22. All the participants were native speakers of Turkish.

3.3.Data Collection Instruments

The current study has two types of instruments; the instruments for the quantitative data elicitation and the instruments for the qualitative data which were presented in the following section:

3.3.1. Quantitative data collection instruments

Quantitative data collection instruments were divided into two categories: the instrument measuring receptive knowledge of lexical bundles and the instruments measuring productive knowledge of lexical bundles in controlled and uncontrolled situations.

3.3.1.1. Measuring receptive knowledge of lexical bundles

In order to elicit the receptive knowledge of lexical bundles, the researcher developed the Multiple Choice Test-format adopted by Schmitt et al., (2004). This test format required to select one from five options. The four distractors were semantically close to the right option as well as showing similarity in length and structure.

Moreover, a fifth option included 'I don't know'.The example of this format is as follows;

Students will meaningfully connect the music to the images they view. (11)_____, the music will seem to be telling the same story.

11. a. On the other view
    b. On the other part
    c. On the other standpoint
    d. In other words
    e. I don't know

The multiple choice test-format (See Appendix C) for assessing the students' receptive knowledge of target lexical bundles was developed by using Corpus of Contemporary American English (Coca, Davies, 2008). Coca was selected as a reference

corpus because it provided many contexts in which target bundles occur; thus, these examples were easily extracted and adapted for the items on a multiple-choice test format. The corpus includes more than 520 million words of text (20 million words each year 1990-2015) and it is equally divided among spoken, fiction, popular magazines, newspapers, and academic texts.

Using COCA web interface, the search results were restricted to the academic genre especially from a variety of academic journals. By clicking on the title of the journal article, a larger window opened up demonstrating a passage-length context. The sentences were examined and selected according to these two criteria: the sentence had to provide enough context for the use of target bundles and the level of vocabulary in the sentence had to be in line with that of students' textbook.

The multiple-choice test developed by the researcher was reviewed by all members of the dissertation committee and two other Turkish proficient EFL instructors and two native speakers. In the light of the feedback received, some items were replaced, modified and omitted. Moreover, after adapting the instrument, the test was piloted to two native speakers and one group of preparatory class including 20 students so as to evaluate its reliability. According to the test results, the number of questions were reduced from 20 to 16 to increase the reliability level of the test. Cronbach's alpha value was calculated as .803.

3.3.1.2. Measuring productive knowledge of lexical bundles

For the productive measurement instrument of lexical bundles in a controlled situation, C-test format in Schmitt et al.'s (2004) study was used in the present study in order to measure the participants' productive knowledge of target bundles. Most or all of the content words in each lexical bundle were deleted and students were asked to produce the appropriate target form based upon meaning and context such as;

- Interviews were conducted with each participant prior to the start of the study **a_ we__ a_** at its conclusion. The four questions asked of students were on attitudes and personal preferences. **(in addition to)**
- Most new teachers typically have little support from other teachers. **A__ a re___**, teachers have few opportunities to manage student behaviour or design lesson plans**.(consequently)** (See Appendix D)

For the validity of the C-test, learners were not required to spend much time on guessing the target bundles, therefore, the participants were given a definition of lexical bundles at the end of the sentences. In the present research, as in the multiple choice format, Using COCA database, the search results were limited to the academic genre. The sentences were analyzed and selected according to the same two criteria: enough context for the use of target bundles, and the level of vocabulary in the sentence.

The c-test developed by the researcher was also checked by all members of the dissertation committee and two other Turkish proficient EFL instructors and two native speakers. Revisions were made to the instrument. The c-test was piloted twice. It was first piloted with two native speakers to get the initial feedback. Based on their feedback, the c-test was piloted with one preparatory class including 20 students so as to evaluate its reliability. According to the test results, the number of questions were reduced from 20 to 16 to increase the reliability level of the test. Cronbach's alpha value was calculated as .892.

Later, participants were required to write an argumentative paragraph to answer the prompt given:

--'*The role of vocabulary on EFL students' academic writing skills*.'

This topic was selected because it was related to the focus of the study. This extended writing was intended to evaluate whether participants were able to use target lexical bundles in their actual production or not. All these three instruments were used as pre-test, immediate post-test, and delayed postest in the study.

3.3.2. Qualitative data collection instrument

3.3.2.1 . Attitude questionnaire

As a qualitative data elicitation instrument, the researcher used a questionnaire including 15 closed-ended items and three open-ended items, through which participants' opinions on the explicit instruction of target lexical bundles. The questionnaire developed by Kazemi, Katiraei and Rasekh (2014) was used to measure students' satisfaction of the treatment in the current research. This questionnaire was translated into Turkish and back-translated in order to ensure accuracy and confirm quality. This procedure was made by an EFL instructor who did not have prior knowledge about the research. Then, the back translated text and original text were compared and evaluated by four proficient EFL

instructors. The same four proficient university instructors evaluated the updated questionnaire for validity and some revisions were made in the light of feedback received from experts. Afterwards, the questionnaire was piloted to one group of preparatory class students including 15 students for reliability. Cronbach's Alpha value was calculated as .825**.**

After the questionnaire including 15 closed-ended questions, participants were invited to take part in open-ended questions. "Open-ended questions in a survey are questions for which researchers do not provide response options; the participants provide their own response to questions" (Creswell, 2012, p.386-387). As for the trustworthiness of qualitative (open-ended questions section) method, the researcher used 'member checking' procedure which means taking data and interpretations back to the participants in order to confirm their responses and 'audit trail' procedure which include an external auditor to review the qualitative inquiry (Creswell and Miller, 2000).The questionnaire were made up of three sections:

a. demographic sections for respondents' background information (gender, age)
b. Likert scale statements on respondents' attitudes on the explicit instruction of bundles on the academic writing skills of intermediate EFL students.
c. Open-ended questions section to elicit the respondents' comments and opinions (See Appendix E)

3.4.The Teaching Procedure

3.4.1. Selecting the target lexical bundles

According to Schmitt, Dornyei, Adolphs & Durow (2004), there has been three important criteria for selecting the target lexical bundles; frequency, appearance in academic discourse, and being worthwhile to teach students. In other words, firstly, in order to be seen as lexical bundles, some degree of frequency is one of the prominent defining characteristics. Secondly, the lexical bundles must appear in the academic discourse. Lastly, lexical bundles must be regarded as useful for students to teach (Schmitt et al., 2004). Based on these criteria, Academic Formulas List (AFL) (Simpson-Vlach & Ellis, 2010) and the work of Biber et al. (1999) were used as sources in this current study.

An Academic Formulas List (AFL) developed by Simpson-Valch and Ellis (2010) is an empirically derived, pedagogically useful list of formulaic sequences for academic speech and writing. This list is produced after the examination of a 2.1 million words of written and 2.1 million words of spoken academic discourse across a variety of disciplines (Humanities and Arts, Social Sciences, Natural Sciences/ Medicine, Technology and Engineering). Applying frequency measure in combination with validation and prioritization studies, the researchers determined which lexical bundles are worth teaching by creating a list of lexical bundles of three to five-grams recommended for instruction. Therefore, as this empirically derived list is pedagogically relevant to their fields and useful to students (Engineering and Social Sciences), the researcher used AFL as a source in this current study.

As for another source, the researcher used The Longman Grammar of Spoken and Written English (LGSWE) (Biber et al., 1999) which defined the term 'lexical bundle' and compared the most frequently used formulaic sequences in conversation and academic prose. This study was distinctive in some aspects; First, the term 'lexical bundle' was first used in this research; Second, it adopted a register and explicitly compared spoken and written registers (conversation and academic prose); Lastly, it was based on empirical analysis of large corpora (Biber, Conrad & Cortes, 2004).

In the light of these two works, based on the criteria of relevance to the class instruction and utility, the researcher identified academic three-word lexical bundles listed in the Core AFL and Written AFL (Simpson-Vlach & Ellis, 2010) and the LGSWE (Biber et al., 1999) within the selected four texts in students' textbook called 'Pathways: Reading, Writing and Critical Thinking' published by National Geographic Learning (Vargo & Blass, 2013). Three-word lexical bundles in the lists of AFL and the lists of LGSWE that were present in the reading passages were identified by the researcher. It was analyzed and compared with the lists of two sources in order to determine which lexical bundles are useful for students or not. The researcher identified 25 mutual lexical bundles.

After compiling the lexical bundles, The Corpus of Contemporary American English (COCA, Davies, 2008) -the largest corpus of American English- was used in order to examine how frequently these lexical bundles occur in the academic discourse. Three-word sequences must recur at least forty-times per million words at least in five different texts in the written register in order to be regarded as a lexical bundle. This

principle suggested by Biber, Conrad & Cortes (2004) was followed by the researcher in order to maintain a more conservative view in the frequency of these word-combinations and to teach the highest frequent lexical bundles. 20 out of 25 lexical bundles were identified recurring at least forty-times per million words in five different texts in Coca.

Furthermore, the lexical bundles located in the texts were also examined by the researcher to determine whether the pragmatic fuctions of lexical bundles in the reading texts matched the pragmatic functions of those employed in the lists of AFL (Simpson-Vlach & Ellis, 2010) and the lists of LGSWE (Biber et. al, 1999) and the list of Biber et. al (2004). (4 discourse organizers, 8 referential bundles and 4 stance bundles) (See Appendix B). After investigation of three-word lexical bundles in terms of appearance in the literature, frequency and pragmatic functions, target lexical bundles selected in the current study are presented below: (shown in Table 3.1.)

Table 3.1. *Target Bundles Used in the Current Study*

the effect of	*it is important*	*one of the*	*as well as*
as a result	*in response to*	*most of the*	*the number of*
according to the	*in other words*	*part of the*	*be able to*
the rest of	*the importance of*	*there was no*	*the level of*

As a consequence, the researcher created a list of 16 target bundles (four target bundles for each reading text) in order to use in the current study based on the criteria including appearance in the literature, appearance in the textbooks, corpus reference, frequency in the academic genre, and usefulness for students.

3.4.2. Instruments used during the teaching procedure

3.4.2.1. Reading texts

Prior to the teaching period, the researcher selected four academic reading passages taken from the National Geographic Learning's academic reading-writing intermediate level students' textbook called "Pathways: Reading, Writing and Critical Thinking" published by National Geographic Learning (Vargo & Blass, 2013). The title of the reading passages which were not studied before as follows: "The Changing Face

of Communication"; "Where Have All the Fish Gone"; "The Art of Memory"; "Train Your Brain". The texts included approximately 500-600 words. The texts were originally taken from the students' textbook without any simplification or adaptation procedures. (See Appendix F)

3.4.2.2. Worksheets

The procedure included 6 sessions, four sessions of which are divided into two main parts; the reading comprehension and the explicit teaching of bundles (180 min total). The last two sessions were the review of all the target bundles. First, the researcher designed pre-reading, while-reading and post-reading activites for the target reading passages to be accurately comprehended. As pre-reading activites, asking thought-provoking questions, defining keywords in contextual examples, responding a mini quiz were prepared for the students to activate their background knowledge. In while-reading and post-reading part, the researcher prepared further related comprehension questions for each text for further understanding of the text including main idea. Then, in the second part, the participants had to do three types of activites; noticing, retrieval and generative activities. The researcher designed 5 worksheets based on exercises proposed by Cortes, 2006; Jones & Haywood 2004; Nation 2001, Neely & Cortes, 2009; Salazar 2014; Peters & Pauwels, 2015). The researcher designed 8 types of tasks; two tasks for noticing activies; two tasks for retrieval activites; four tasks for generative activies. They were designed in order of increasing difficulty. Each of tasks is explained below:

Noticing Activities

- **Activity type 1**: This task included selected target bundles highlighted in bold and asked students to guess their meanings from the context in the target text. In this way, the instructor aimed at simply raising students' awareness about the salient target lexical bundles through their textbooks. This step was intended to draw students' attention to sequences and thus foster noticing (Nation, 2001; Jones & Haywood, 2004) (See Appendix H)
- **Activity type 2:** This task was a concordancing task for the key lexical bundles. The researcher gave some concordancing lines taken from Coca for each lexical bundles to students in order to analyze them more elaboratively for their meanings

and functions. In this activity, the instructor drew their attention to the form and the function of the target bundle using two questions. The examples of these questions are: **a**. Notice the words immediately preceding and following 'the rest of'. Is there a pattern? **b**. What do you think the speaker's purpose was in using 'the rest of'? etc. (Neely & Cortes, 2009; Salazar, 2014) (See Appendix H)

Retrieval Activites

- **Activity type 3:** This task included 'fill in the blank' in examples taken from Coca. The instructor wanted students fill in the gaps with appropriate lexical bundles in the contexts taken from Corpus of Contemporary American English. (COCA) (Neely & Cortes, 2009) (See Appendix H)
- **Activity type 4:** In this task, students were asked to rephrase the isolated sentences taken from COCA containing target lexical bundles using the clue in brackets. (Peters & Pauwels, 2015) (See Appendix H)

Generative Activities

- **Activity type 5:** This task was a substitution task. Students were asked to replace the underlined expressions in the sentences with a similar expression (target bundles) from the box. (Salazar, 2014) (See Appendix H)
- **Activity type 6:** This task involved using the key lexical bundles in a meaningful sentence. Students were asked to write their own sentences using target bundles. (Peters & Pauwels, 2015) (See Appendix H)
- **Activity type 7:** This task included some paragraphs taken from Coca without adding lexical bundles. Students were asked to decide about where they think the target lexical bundles fit best to convey the function (Cortes, 2006) (See Appendix H)
- **Activity type 8:** The last exercise was writing a paragraph using the target lexical bundles. Students were asked to write an opinion or argumentative paragraphs about the topic of each text (Nation, 2001) (See Appendix H).

As explained in detail above, the target bundles-focused tasks developed by the researcher for explicit teaching of lexical bundles were made up of five sets in total; five worksheets –one for each reading text and two for review sessions. Each set contained 8 types of tasks which constituted a single set of worksheet for each treatment session. For each reading text and worksheet, lesson plans were prepared by the researcher and all the

activities and lesson plans were checked by three proficient instructors. In the light of the feedback received, the activities and the lesson plans were revised and implemented in the sessions. (See Appendix G for lesson plans).

3.4.3. Treatment and procedure of the study

Prior to the implementation of the research, pre-tests for measuring receptive knowledge (e.g. multiple choice test) and for measuring productive knowledge of students (e.g. c-test, argumentative paragraphs) were administered to the participants. After that, the instructional materials developed for the study were used during the treatment.

In the first week, prior to the treatment, first, participants were required to write an argumentative paragraphs as a pre-test in an uncontrolled situation before the instruction in the first week. Moreover, C-test was also applied as a pre-test for the productive knowledge of target lexical bundles in controlled situation. Lastly, the multiple choice test was administered to the participants as the pre-test to learn about their receptive skills about target lexical bundles.

The treatment lasted 6 consecutive weeks (involving 180-minute sessions for each week). In the first week, the researcher explained the project to the students and the term 'lexical bundle'. The participants were explained that learning these academic expressions would enable them to develop their academic writing abilities. Explicit instruction of the target lexical bundles was carried out with the activities which were aligned with the three psychological processes essential for successful vocabulary learning- noticing, retrieval and generative use (Nation, 2001). Participants were integrated into activities that focused on the improvement and retention of receptive and productive knowledge of target lexical bundles.

The treatment proceeded in the following way. In the 1st, 2nd, 3rd and 4th weeks, the researcher divided the session into two main parts; reading and teaching of bundles. In the reading part, the researcher designed pre-reading, while-reading and post-reading activities including thought-provoking questions, defining the keywords of the texts (different from the target bundles), and responding a mini quiz (quessing whether the sentences are true or false before reading) as pre-reading activities. In while-reading and post-reading part, the researcher prepared further related comprehension questions for each text for further understanding the text including main idea. After the students became

familiar with the content of the reading passage, The first stage was followed by the explicit teaching of bundles stage which involved a worksheet including 8 types of tasks for noticing, retrieval and generative activites. Three types of activities- noticing, retrieval and generative activities were designed by the researcher based on Nation's (2001) study and participants in the treatment group worked on these exercises.

Among the noticing activities, as a first activity, the same reading text was given to students again with the target lexical bundles highlighted in bold and the participants were asked to analyze the bundles collaboratively and guess their meanings from the context in the text by the help of their instructor. This step was intended to promote noticing (Jones & Haywood, 2004 ; Nation, 2001; Nguyen, 2014). As a second noticing activity, the participants were engaged in a concordancing task which contained concordancing lines from COCA for each lexical bundle, which would help the students know more about the target lexical bundles to encourage deep-level of processing (Jones & Haywood, 2004) such as discovering patterns of usage, functions and structures of target bundles in a collaborative way. The treatment continued with retrieval activities for target lexical bundles. As the first retrieval activity, fill in the blank examples taken from COCA were used in the activity where the participants were required to fill the missing parts of the sentences with the target bundles that were provided to them (Neely & Cortes, 2009). Subsequently, students were asked to rephrase the isolated sentences taken from COCA containing target lexical bundles using the clue in brackets. (Peters & Pauwels, 2015). The session continued with the generative activities. The first activity was a substitution task where participants were required to replace the underlined expressions within the sentences with a similar expression (target bundles) from the box that were provided to them. (Salazar, 2014). Subsequently, the participants were required to use the target bundles in a meaningful sentence as second generative activity. As for the third generative activity, the researcher has prepared some paragraphs taken from COCA without adding target lexical bundles. Students were asked to rewrite the paragraphs locating the target lexical bundles where they thought it would fit best to convey the function. Lastly, participants were required to write an opinion or argumentative paragraphs about the topic of each text using the target lexical bundles in their own writing. All the activities were designed in order to increase students' awareness of lexical bundles, offer opportunities for students to retrieve them in controlled situations and use

them creatively in uncontrolled situation. (Cortes, 2006; Jones & Haywood 2004; Nation 2001, Neely & Cortes, 2009; Salazar 2014; Peters & Pauwels, 2015).

In the Week 5 and Week 6, the researcher designed a review worksheet including all target lexical bundles (16 bundles) in all types of activites. The participants were required to do all the activities in order to review all the lexical bundles. After reviewing part, in the last session, the importance of the use of lexical bundles in writing was discussed and evaluated by the participants.

After the training sessions, the same tests (multiple choice test and c-test) and argumentative paragraphs (on the same topic in the same length as the pre-test) were given as immediate post-tests during the final week. Moreover, after the instruction, as a qualitative data elicitation, participants were asked to answer the closed-ended and open-ended questions in the questionnaire in order to learn their attitudes and opinions towards the formal instruction of lexical bundles in their writing skills. After an interval of almost three weeks (20 days-length), the same post-tests including multiple choice test, c-test and essays were applied to the participants as delayed-post test to measure the effect of time on participants' retention of the receptive and productive knowledge of target lexical bundles taught during the instructional treatment. The sessions applied during the training period -6 consecutive weeks- are presented in the Table 3.2. below:

Table 3.2. *The Procedure of the Study*

Sessions	Procedure
	Pre-tests a. Multiple Choice test (Receptive knowledge of LB) b. C-tests (Productive knowledge, controlled situation) c. Argumentative paragraphs (Productive knowledge, uncontrolled situation)
Session 1 (Week 1) **Session 2 (Week 2)** **Session 3 (Week 3)** **Session 4 (Week 4)**	The reseracher's explaining the project to the students and illustrating the term 'lexical bundle' The first part; pre, while and post-reading activities for the target reading texts. The second part; 1. Noticing activities 2. Retrieval activities 3. Generative activities
Session 5 (Week5) **Session 6 (Week 6)**	Review 1. Noticing activities 2. Retrieval activities 3. Generative activities • Discussing the importance of lexical bundles in writing and evaluating the training period.
Week 6	**Post-tests** (Quantitative Data Collection Instruments) a. Multiple Choice test (Receptive knowledge of LB) b. C-tests (Productive knowledge, controlled situation) c. Argumentative Paragraphs (Productive knowledge, uncontrolled situation) (Qualitative Data Collection Instruments) • Attitude Questionnaire a. Closed-ended questions (Quantitative) b. Open-ended questions (Qualitative)
Week 9	**Delayed Tests** a. Multiple Choice test (Receptive knowledge of LB) b. C-tests (Productive knowledge, controlled situation) c. Argumentative paragraphs (Productive knowledge, uncontrolled)

3.5. Data Gathering and Analysis

The data for the study were (a) pre-test and immediate posttest and delayed post-test scores on the receptive knowledge of lexical bundles on academic writing skills (multiple choice test), (b) pre-test, immediate post-test and delayed post-test scores on the performance in controlled situations (C-test) (c) pre-test, immediate post-test and delayed post-test scores on the performance in uncontrolled situation (argumentative paragraphs). Total raw scores of each student for multiple choice test format and c-test format were converted into hundred point grading system. For the multiple choice test, each correct item was multiplied with 6.25 point (100 in total), as there was 16 items in the instrument. For the c-test instrument, the two raters' scores were averaged. The average total raw score of each student obtained from the instrument through the rubric below (shown in Figure 3.1.) was also converted into hundred point grading system (multiplied by 100 and divided by 48 as the instrument had 16 items and the rubric had 3 as the highest point).

In order to answer the first research question as well as descriptive statistics, a one way ANOVA with repeated measures was conducted as the data follows a normal distribution to compare the mean scores of pre-, post- and delayed post-test in order to find out any statistical significant differences on achievement and retention of receptive and productive knowledge of lexical bundles in controlled and uncontrolled situations on academic writing skills. Furthermore, to detect where the significant difference occurred, pairwise comparisons with BONFERRONI adjustment were calculated.

In order to answer the second question, the quantitative data collected from the closed-ended questions were analyzed through descriptive statistics through which the frequencies, percentages, means, and standard deviations of each item were calculated in detail and for the qualitative data collected from open-ended questions in the questionnaire, the researcher conducted content analysis as it is beneficial "as a means of analyzing interview and observational data" (Fraenkel & Wallen, 2009). Reading through the data, the researcher used hand analysis of qualitative data which included process of coding which was reduced to major themes through eliminating redundancies.

Morever, a detailed content analysis for argumentative paragraphs was conducted in order to find out the number of target bundles used accurately or inaccurately; appropriately or inappropriately among the three tests.

For the assessment of learners' productive knowledge of lexical bundles in controlled situations (C-test), the researcher used a rubric which was based on the scoring scale originated by Jones & Haywood (2004). However, some modifications were made by Čolović-Marković (2012) in the scoring scale to to be more conservative. Using Jones and Haywood's (2004) scale and Čolović-Marković's (2012) modifications as a basis to better fit the purposes of the present study, the scoring scale constructed by the researcher for measuring productive knowledge of lexical bundles in controlled situation (c-tests) was presented in Figure 3.1:

3=	Correct phrase; spelling issues possible but no derivational or inflectional morphology mistakes
2=	Correct phrase but problems with inflectional morphology (e.g. 'in other word' instead of 'in other words') or substitution of a preposition (e.g. 'at the other hand' instead of 'on the other hand', correct content words but not preposition or article.
1=	Incorrect phrase; some idea of lexical bundles but could not get the right phrase: problems with derivational morphology (e.g. 'the important of' instead of 'the importance of')
0=	No idea or no attempt to produce lexical bundles

Figure 3.1. *The Scoring Scale for Measuring Productive Knowledge of Lexical Bundles in Controlled Situation (C-test)*

For the assessment of learners' productive knowledge of lexical bundles in uncontrolled situation (argumentative paragraphs), two dependent variables were measured; accuracy and appropriateness. These two variables were the number of target bundles which were used a) grammatically accurately and b) with appropriate meaning. Every instance of the use of target bundles was marked for appropriacy and accuracy. For appropriacy, a score of 1 was awarded when target bundles were used in appropriate meaning, a score of 0 was given when the meaning of the target bundles was incorrect. For accuracy, as the scoring rubric adapted by Čolović-Marković (2012) was more conservative than the scoring rubric of Jones & Haywood (2004), and as it measures the focus of the present study, the researcher used the rubric which was based on the scale of Čolović-Marković (2012). However, although Čolović-Marković (2012) did not include one word substitutions within another word of the same category considering the procedure of the assessment of the essays would be very difficult to carry out as it would create a large pool of phrases to be searched in the essays, the researcher added this item

to the rubric to become more conservative in the evaluation. The rubric for the assessment of learners' productive knowledge of lexical bundles in uncontrolled situation was presented int he Figure 3.2:

3=	Correct phrase; spelling issues possible but no derivational or inflectional morphology mistakes
2=	Correct phrase but problems with inflectional morphology (e.g. 'in term of' instead of 'in terms of')
1=	Incorrect phrase but an attempt at production of correct phrase evident which can be described as one of the following: a. Substitution of a preposition (e.g. 'in the other hand' instead of 'on the other hand') b. Omission of a function word inside the phrase (e.g. 'as result' instead of 'as a result' c. Substitution of ONE word within a phrase with another word of the same word category (similarin spelling, pronunciation and/or meaning) (e.g. 'the effort of' instead of 'the effect of')
0=	No attempt to produce lexical bundles or any combination of the issues described under the rating of 1

Figure 3.2. *The Scoring Scale for Measuring Productive Knowledge of Lexical Bundles in Uncontrolled Situation*

Using the scoring rubric developed by Jones & Haywood (2004) and adapted by Čolović-Marković (2012) as a basis, every instance of the use of target bundles within the c-test and extended writings' pre-test, immediate post-test and delayed post-test were evaluated by the researcher and a trained rater. Ninety argumentative paragraphs (30 paragraphs for each test) were evaluated by the same raters both for accuracy and appropriacy. Both raters were Phd students; one of whom was the researcher. In order to determine the consistency between these two raters, an Intraclass coefficient test was calculated for c-tests and argumentative paragraphs (i.e. accuracy and appropriacy). A high degree of reliability was found between two raters. Interrater reliability coefficient was found as .980 for pre-test; .991 for post-test; .997 for delayed post-test of c-test; .968 for pre-test, .990 for post-test and .990 for delayed post-test of accuracy; .909 for pre-test, .987 for post test, .954 for delayed post-test of appropriacy for argumentative paragraphs. According to the consistency level obtained from this test, the two raters' scores were averaged**.**. The average scores of pre-test, post-test and delayed post-test on the c-test and essays were measured in order to find out whether there was a significant difference across the three tests on the controlled and uncontrolled production of lexical bundles.

CHAPTER FOUR

RESULTS

4.1. Introduction

The findings of quantitative and qualitative analyses were presented in this chapter in two parts. The findings of quantitative and qualitative analyses were presented in line with the following research questions:

In this aspect, the current study addresses the following research questions:

Research Question 1: Are there any significant differences among the pretest, immediate post-test and delayed post test scores of the treatment group receiving explicit instruction of lexical bundles through noticing, retrieval and generative activities on,

a. achievement and retention of receptive lexical bundle knowledge (i.e. multiple choice test) in academic writing of intermediate EFL students?
b. achievement and retention of productive lexical bundle knowledge -in a controlled situation (i.e. c-tests)- in academic writing of intermediate EFL students?
c. achievement and retention of productive lexical bundle knowledge -in an uncontrolled situation (i.e.argumentative paragraphs)- in academic writing skills of intermediate EFL students?

Research Question 2: What are Turkish intermediate EFL learners' opinions on the explicit instruction of lexical bundles through noticing, retrieval and generative activities on augmenting their academic writing skills?

To answer the first research question, descriptive statistics and a one way ANOVA with repeated measures was conducted to compare pre-test, immediate post-test and delayed post-test scores in order to investigate whether explicit instruction had a statistically significant difference on the -dependent variable- receptive and productive knowledge of lexical bundles in controlled and uncontrolled situations. Furthermore, pairwise comparisons with Bonferonni adjustment were applied to reveal where the significance occured across three tests. Furthermore content analysis was conducted in

order to find out the number of lexical bundles which were used accurately or inaccurately; appropriately or inappropriately in uncontrolled situation.

To answer the second research question, descriptive statistics were implemented for the first part of the questionnaire including frequencies, percentages, means, and standard deviations. The second part of the questionnaire (open-ended questions) were analyzed through content analysis.

In the following section, the results of the statistical analyses were presented in respect to the relevant research questions in detail.

4.2. Receptive Knowledge of Lexical Bundles

The first sub-question of the study investigated whether explicit instruction of lexical bundles through noticing, retrieval and generative activities had an effect on achievement and retention of receptive lexical bundle knowledge in academic writing (See Table 4.1.)

Table 4.1. *Comparison of Mean Scores of Treatment Group on Receptive Knowledge*

Descriptive Statistics						
Multiple Choice Test	**N**	**Range**	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
pretest	30	75,00	6,25	81,25	51,6500	19,12669
posttest	30	50,00	50,00	100,00	93,1250	12,75072
delayedpost	30	56,25	43,75	100,00	92,2917	12,13734

As shown in Table 4.1, the mean scores on the post-test (*M*= 93.12, *SD*=12.75) and delayed post-test (*M*= 92.29, *SD*= 12.13) of the treatment group were higher than pre-test (*M*=51.65, *SD*= 19.12) scores of the participants in terms of learners' receptive achievement and retention of lexical bundles in Multiple choice test format. The minimum score in the pre-test of the participants in Multiple Choice test was 6.25 before the treatment and 50.00 immediately after the intervention with a gain of 43.75; and the minimum scores of delayed post-test was 43.75 three weeks after treatment with a gain of 37.5 when compared to the pre-test. Therefore, to be more specific, the mean scores of the treatment group increased from pre-test to immediate and to delayed post-test in

receptive mastery and retention of the target lexical bundles. Differences among the mean scores of the treatment group can also be observed in Figure 4.1.

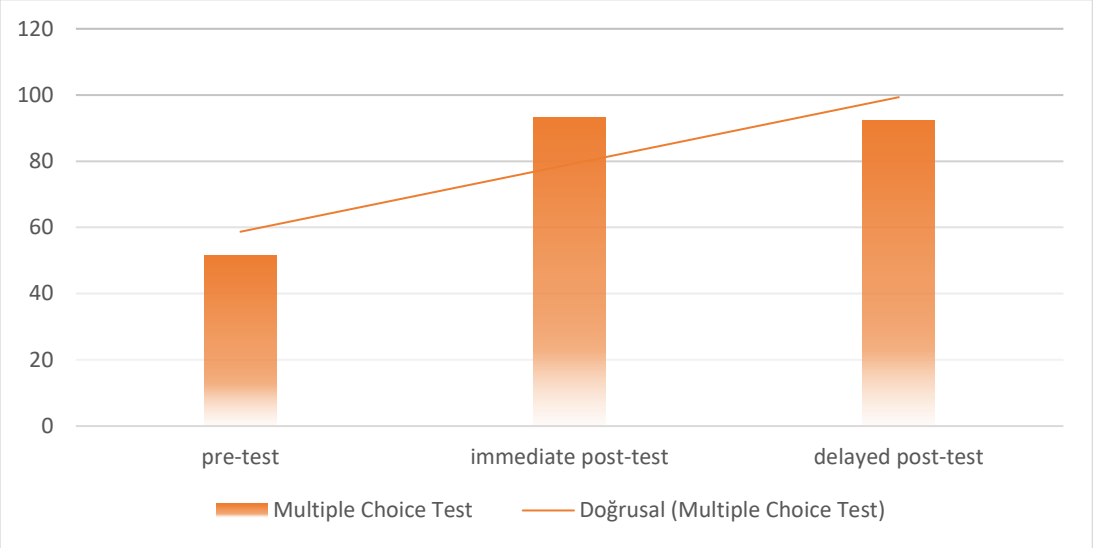

Figure 4.1. *Comparison of Pre-test, Immediate post-test and Delayed post-test Scores of Treatment Group on Receptive Knowledge*

As shown in Figure 4.1, the participants in the treatment group showed a considerable improvement from pre-test to post-test. However, there was a slight decrease from the mean scores of immediate post-test (*M*= 93.12, *SD*=12.75) to delayed post-test (*M*= 92.29, *SD*= 12.13) in terms retention of the lexical bundles.

A more detailed analysis with repeated measures Anova was calculated in order to find out whether there was a statistically significant difference among pre, post and delayed post-test scores of the treatment group with regard to the impact of the explicit instruction of lexical bundles on the receptive achievement and retention rate of the target bundles. Table 4.2. demonstrated one way repeated measures Anova results for mean scores of the treatment group.

Table 4.2. *One Way Repeated Measures Anova Results on Receptive Knowledge*

Multiple Choice Test	Sum of Sq.	df	Mean Square	F	p	Partial Eta Squared
Within-Subjects-Effects	33726.151	1.560	21623.396	93.483	.000	.763
Error	10462.474	45.231	231.310			

As shown in Table 4.2, the findings revealed that there was a statistically significant difference (F (1.560, 45.231) = 93.483, p<.05) across three tests in terms of receptive knowledge scores (Sphericity assumption was not met, Greenhouse-Geisser results were reported). The effect size was calculated to be large (partial η^2 = .763) (Cohen, 1988) indicating that approximately 76% of variance in the receptive knowledge scores attributable to explicit instruction of lexical bundles.

Pairwise comparisons with Bonferroni adjustment were calculated to detect where the significant difference occured across three tests. The scores are given in Table 4.3.

Table 4.3. *Pairwise Comparisons Results for Mean Scores of the Treatment Group on Receptive Knowledge*

(I) Time	(J)Time	Mean Difference (I-J)	Std. Error	p	95% Confidence Interval for Difference(a)	
					Lower Bound	Upper Bound
Pre-test	Post-test	-41,475(*)	3,601	,000	-50,625	-32,325
	Delayed-test	-40,642(*)	4,127	,000	-51,127	-30,156
Post-test	Pre-test	41,475(*)	3,601	,000	32,325	50,625
	Delayed-test	,833	2,466	1,000	-5,433	7,100
Delayed-test	Pre-test	40,642(*)	4,127	,000	30,156	51,127
	Post-test	-,833	2,466	1,000	-7,100	5,433

As demonstrated in Table 4.3, the findings revealed that while there was a statistically significant difference between pre-test (M=51.65, SD= 19.12) and immediate post-test (M= 93.12, SD=12.75, p< .05), and between pre-test (M=51.65, SD= 19.12) and delayed post-test (M= 92.29, SD= 12.13, p< .05), there was not a significant difference between post-test (M= 93.12, SD=12.75) and delayed post-test (M= 92.29, SD= 12.13 p> .05). Findings obtained from the study demonstrated that explicit instruction of lexical bundles through noticing, retrieval and generative activities not only had an effect on the achievement of receptive knowledge of lexical bundles, but it also enabled participants retain their receptive lexical bundle knowledge three weeks after the instruction.

4.3. The Productive Knowledge of Lexical Bundles

4.3.1. The productive knowledge of lexical bundles in controlled situation

The second sub-question investigated whether there is a significant difference among three tests (pre-test, immediate post-test and delayed post-test) of the treatment group receiving the explicit instruction of lexical bundles on students' productive scores in controlled situation. The scores are given in Table 4.4.

Table 4.4. *Comparison of Mean Scores of Treatment Group on Productive Knowledge in Controlled Situation (c-test)*

Descriptive Statistics					
C-test (in controlled situation)	**N**	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
pretest	30	2,08	67,71	40,5208	17,87416
posttest	30	32,29	100,00	83,0208	19,18039
delayedtest	30	18,75	100,00	83,8889	20,27767

As shown in Table 4.4, the mean scores of the post-test (*M*= 83.02, *SD*=19.18) and delayed post-test (*M*= 83.88, *SD*= 20.27) of the treatment group were higher than pre-test (*M*=40.52, *SD*= 17.87) scores of the participants in terms of learners' productive achievement and retention of lexical bundles in c-test format. The minimum score in the pre-test of the participants in controlled situation was 2.08 before the treatment and 32.29 immediately after the intervention with a gain of 30.21; and the minimum scores of delayed post-test was 18.75 three weeks after treatment with a gain of 16.67 when compared to the pre-test minimum scores. Therefore, to be more specific, the mean scores of the treatment group increased from pre-test to immediate and pre-test to delayed post-test scores in productive mastery and retention of the target lexical bundles in contrrolled situation. Differences among the mean scores of the treatment group are also given in Figure 4.2.

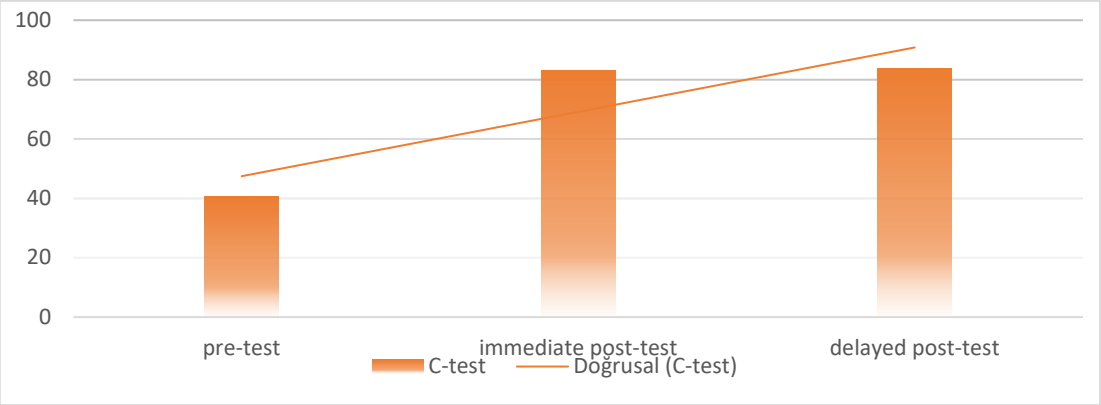

Figure 4.2. *Comparison of Pre-test, Immediate Post-test and Delayed Post-test Scores of Treatment Group in Controlled Situation*

As shown in Figure 4.2, the participants in the treatment group showed a considerable improvement from pre-test to post-test. However, there was a slight increase from the mean scores of immediate post-test (*M*= 83.02, *SD*=19.18) to delayed post-test (*M*= 83.88, *SD*= 20.27) in terms retention of the lexical bundles.

A more detailed analysis with repeated measures Anova was calculated in order to find out whether there was a statistically significant difference among pre, post and delayed post-test scores of the treatment group with regard to the impact of the explicit instruction of lexical bundles on the controlled productive achievement and retention rate of the target bundles. Table 4.5. shows the results of One Way Repeated Measures Anova for mean scores of the treatment group in the controlled situation.

Table 4.5. *One Way Repeated Measures Anova Results for Mean Scores of the Treatment Group in the Controlled Situation (c-test)*

C-test	Sum of Sq.	df	Mean Square	F	p	Partial Eta Squared
Within-Subjects-Effects	36877.918	1.301	28342.786	94.911	.000	.766
Error	11268.060	37.733	298.626			

As shown in Table 4.5, the findings revealed that there was a statistically significant difference (F (1.301, 37.733) = 94.911, p<.05) across three tests in terms of productive knowledge scores in controlled situation (Sphericity assumption was not met, Greenhouse-Geisser results were reported).The effect size was calculated to be large (partial η^2 = .766) (Cohen, 1988) indicating that approximately 76% of variance in the

productive knowledge scores in c-test format attributable to explicit instruction of lexical bundles through noticing, retrieval and generative activities.

Furthermore, pairwise comparisons with Bonferroni adjustment were calculated to detect where the significant differences occured across the three tests (shown in Table 4.6)

Table 4.6. *Pair-wise Comparisons Results for Mean Scores of the Treatment Group in the Controlled Situation (c-test)*

(I) Time	(J) Time	Mean Difference (I-J)	Std. Error	p	95% Confidence Interval for Difference(a)	
					Lower Bound	Upper Bound
Pre-test	Post-test	-42,500(*)	4,199	,000	-53,170	-31,830
	Delayed-test	-43,368(*)	4,214	,000	-54,077	-32,660
Post-test	Pre-test	42,500(*)	4,199	,000	31,830	53,170
	Delayed test	-,868	1,860	1,000	-5,594	3,858
Delayed-test	Pre-test	43,368(*)	4,214	,000	32,660	54,077
	Post-test	,868	1,860	1,000	-3,858	5,594

As shown in table 4.6, the results indicated that while there was a statistically significant difference between pre-test (*M*=40.52, *SD*= 17.87) and immediate post-test (*M*= 83.02, *SD*=19.18, p< .05), and between pre-test (*M*=40.52, *SD*= 17.87) and delayed post-test (*M*= 83.88, *SD*= 20.27, p< .05), there was no significant difference between post-test *(M*= 83.02, *SD*=19.18) and delayed post-test (*M*= 83.88, *SD*= 20.27 p> .05). Findings obtained from the study demonstrated that explicit instruction of lexical bundles through noticing, retrieval and generative activities had a statistically significant impact on the achievement of productive knowledge of lexical bundles in controlled situation. Moreover, the treatment also enabled participants retain their controlled productive lexical bundle knowledge three weeks after the instruction.

4.3.2. The productive knowledge of lexical bundles in uncontrolled situation

The third sub-question of the study investigated whether explicit instruction of lexical bundles through noticing, retrieval and generative activities had statistically significant effect on learners' achievement and retention of productive lexical bundle

knowledge in uncontrolled situation. To measure the participants' ability to use the target bundles in their argumentative paragraphs, two dependent variables were measured; accuracy and appropriateness. These two variables were the number of target bundles which were used a) grammatically accurately and b) with appropriate meaning .

4.3.2.1. Accuracy

The related descriptive statistics for subjects' accuracy mean scores are given in Table 4.7.

Table 4.7. *Comparison of Accuracy Mean Scores of Treatment Group on Productive Knowledge in Uncontrolled Situation*

Descriptive Statistics						
Accuracy	**N**	**Range**	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
pretest	30	12,00	,00	12,00	3,6000	3,66107
posttest	30	51,00	,00	51,00	24,6667	13,38188
delayedtest	30	20,00	,00	20,00	8,7667	6,17382

As shown in Table 4.7, the mean scores on the post-test (*M*= 24.66 *SD*=13.38) and delayed post-test (*M*= 8.76, *SD*= 6.17) of the treatment group were higher than pre-test (*M*=3.60, *SD*= 3.66) scores of the participants in terms of learners' productive achievement and retention of lexical bundles in uncontrolled situation.. The maximum score in the pre-test of the participants in argumentative paragraphs was 12.00 before the treatment and 51.00 immediately after the intervention with a gain of 39.00; but the maximum scores of delayed post-test was 20.00 three weeks after treatment with a small gain of 8.00 when compared to the pre-test scores. Therefore, to be more specific, the accuracy mean scores of the treatment group increased from pre-test to immediate and to delayed post-test scores in uncontrolled productive mastery. However, there was a considerable decrease from immediate post-test to delayed-post test scores in terms of the retention of lexical bundles three weeks after the treatment. Differences among the mean scores of the treatment group are also given in Figure 4.3.

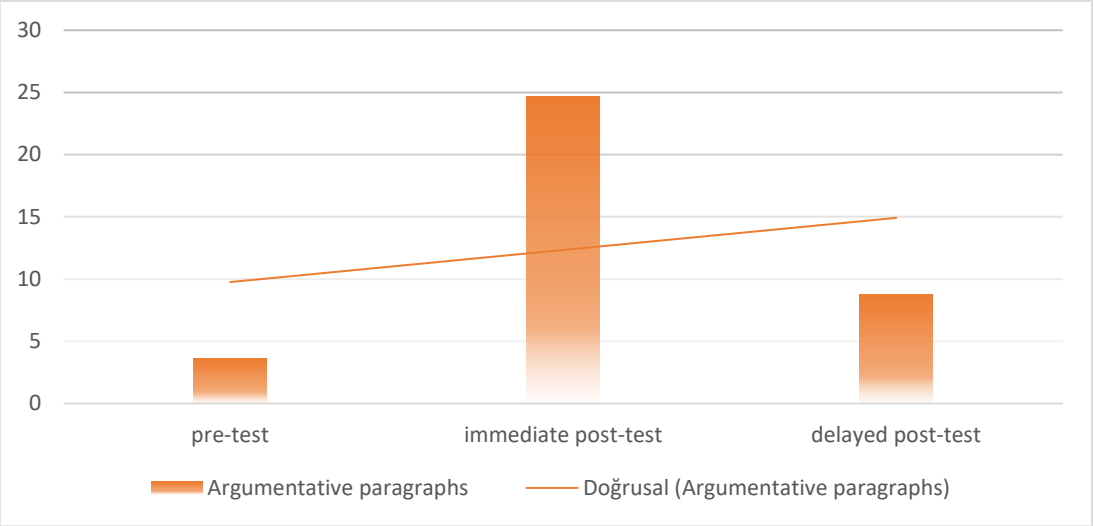

Figure 4.3. *Comparison of Pre-test, Immediate Post-test and Delayed Post-test Accuracy Scores of Treatment Group in Uncontrolled Situation*

As shown in Figure 4.3, the participants in the treatment group showed a considerable improvement from pre-test to post-test scores in uncontrolled situation in terms of grammatical accuracy. However, there was a a substantial decrease from the mean scores of immediate post-test (*M*= 24.66 *SD*=13.38) to delayed post-test (*M*= 8.76, *SD*= 6.17) in terms retention of the lexical bundles.

Repeated measures Anova was carried out to reveal whether there was a statistically significant difference among pre, post and delayed post-test scores of the treatment group with regard to the impact of the explicit instruction of lexical bundles on the uncontrolled productive achievement and retention rate of the target bundles in terms of being used accurately. (See Table 4.8.)

Table 4.8. *One Way Repeated Measures Anova Results for Accuracy Mean Scores of Treatment Group in Uncontrolled Situation*

Accuracy	Sum of Sq.	df	Mean Square	F	p	Partial Eta Squared
Within-Subjects-Effects	7233,089	1,430	5059,436	55,042	,000	,655
Error	3810,911	41,459	91,920			

As shown in Table 4.8, the findings revealed that there was a statistically significant difference (F (1.430, 41.459) = 55.042, p<.05) across three tests in terms of

productive knowledge scores in uncontrolled situation (Sphericity assumption was not met, Greenhouse-Geisser results were reported). The effect size was calculated to be large (partial $\eta^2 = .655$) (Cohen, 1988) indicating that approximately 65.5% of variance in the productive knowledge accuracy scores in argumentative paragraphs attributable to explicit instruction of lexical bundles through noticing, retrieval and generative activities.

Furthermore, pairwise comparisons with Bonferroni adjustment were calculated to detect where the significant differences occured across the three tests. The scores are given in Table 4.9.

Table 4.9. *Pair-wise Comparisons Results for Accuracy Mean Scores of the Treatment Group in Uncontrolled Situation*

(I) time	(J) time	Mean Difference (I-J)	Std. Error	p	95% Confidence Interval for Difference(a)	
					Lower Bound	Upper Bound
Pre-test	Post-test	-21,067(*)	2,602	,000	-27,677	-14,456
	Delayed-test	-5,167(*)	1,406	,003	-8,739	-1,594
Post-test	Pre-test	21,067(*)	2,602	,000	14,456	27,677
	Delayed-test	15,900(*)	2,097	,000	10,573	21,227
Delayed-test	Pre-test	5,167(*)	1,406	,003	1,594	8,739
	Post-test	-15,900(*)	2,097	,000	-21,227	-10,573

As shown in 4.9, the results indicated that there was a statistically significant difference between pre-test (*M*=3.60, *SD*=3.66) and immediate post-test (*M*= 24.66 *SD*=13.38, p< .05), and between pre-test (*M*=3.60, *SD*=3.66) and delayed post-test (*M*= 8.76, *SD*= 6.17, p< .05). However, it was seen that the delayed post test scores (*M*= 8.76, *SD*= 6.17) were significantly lower than the immediate post-test scores (*M*= 24.66 *SD*=13.38, p<.05) in uncontrolled situation in terms of the retention of the lexical bundles over time. Findings indicated that the productive knowledge of participants in uncontrolled situation increased significantly in terms of grammatical accuracy of target bundles through noticing, retrieval and generative activities. However, this knowledge was not retained as much as it was gained because the results yielded significant results between post-test and delayed test.

4.3.2.2. Appropriacy

The related descriptive statistics for subjects' appropriacy mean scores are given in Table 4.10.

Table 4.10. *Comparison of Appropriacy Mean Scores of Treatment Group on Productive Knowledge in Uncontrolled Situation*

Descriptive Statistics						
Appropriacy	**N**	**Range**	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
pretest	30	3,50	,00	3,50	,9333	1,11983
posttest	30	16,50	,00	16,50	7,6833	4,15950
delayedtest	30	5,50	,00	5,50	2,4333	1,80866

As shown in Table 4.10, the appropriacy mean scores on the post-test (*M*= 7.68 *SD*=4.15) and delayed post-test (*M*= 2.43, *SD*= 1.80) of the treatment group were higher than pre-test (*M*=.93, *SD*= 1.11) scores of the participants on learners' productive achievement and retention of lexical bundles in uncontrolled situation in terms of appropriate use of target bundles. The maximum score in the pre-test of the participants in argumentative paragraphs was 3.50 before the treatment and 16.50 immediately after the intervention with a gain of 13.00; but the maximum scores of delayed post-test was 5.50 three weeks after treatment with a small gain of 2.00 when compared to the pre-test scores. Therefore, to be more specific, the appropriacy mean scores of the treatment group increased from pre-test to immediate and to delayed post-test scores in participants' appropriate use of target bundles in their free writing. However, there was a substantial decrease from immediate post-test to delayed-post test scores in terms of the retention of lexical bundles three weeks after the treatment. The appropriacy mean scores of the treatment group are also given in Figure 4.4.

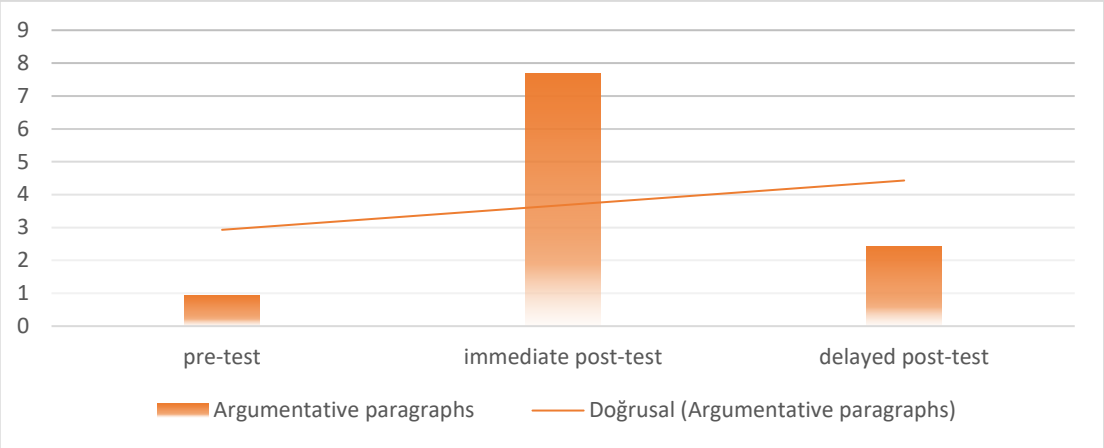

Figure 4.4. *Comparison of Pre-test, Immediate Post-test and Delayed Post-test Appropriacy Scores of Treatment Group in Uncontrolled Situation*

As shown in Figure 4.4, the results indicated that the participants in the treatment group showed a considerable improvement from pre-test to post-test scores in uncontrolled situation in terms of semantic appropriacy. However, there was a considerable decrease from the mean scores of immediate post-test (*M*= 7.68 *SD*=4.15) to delayed post-test (*M*= 2.43, *SD*= 1.80) in terms retention of the lexical bundles.

Repeated measures Anova was carried out to reveal whether there was a statistically significant difference among pre, post and delayed post-test appropriacy scores of the treatment group with regard to the impact of the explicit instruction of lexical bundles on the uncontrolled productive achievement and retention rate of the target bundles in terms of appropriacy. (See Table 4.11.)

Table. 4.11. *One Way Repeated Measures Anova Results for Appropriacy Mean Scores of Treatment Group in Uncontrolled Situation*

Appropriacy	Sum of Sq.	df	Mean Square	F	p	Partial Eta Squared
Within-Subjects-Effects	753,750	1,454	518,308	59,737	,000	,673
Error	365,917	42,173	8,677			

As shown in Table 4.11, the findings indicated that there was a statistically significant difference (F (1.454, 42.173) = 59.737, p<.05) across three tests in terms of productive knowledge semantic appropriateness scores in uncontrolled situation

(Sphericity assumption was not met, Greenhouse-Geisser results were reported). The effect size was calculated to be large (partial η^2 = .673) (Cohen, 1988) indicating that approximately 67.3% of variance in the productive knowledge scores in argumentative paragraphs attributable to explicit instruction of lexical bundles through noticing, retrieval and generative activities.

Furthermore, pairwise comparisons with Bonferroni adjustment were calculated to detect where the significant differences occured across the three tests. The scores are given in Table 4.12.

Table 4.12. *Pair-wise Comparisons Results for Appropriacy Mean Scores of Treatment Group in Uncontrolled Situation*

(I) Time	(J) Time	Mean Difference (I-J)	Std. Error	p	95% Confidence Interval for Difference(a)	
					Lower Bound	Upper bound
Pre-test	Post-test	-6,750(*)	,773	,000	-8,715	-4,785
	Delayed-test	-1,500(*)	,412	,003	-2,548	-,452
Post-test	Pre-test	6,750(*)	,773	,000	4,785	8,715
	Delayed-test	5,250(*)	,703	,000	3,465	7,035
Delayed-test	Pre-test	1,500(*)	,412	,003	,452	2,548
	Post-test	-5,250(*)	,703	,000	-7,035	-3,465

As shown in 4.12, the results indicated that there was a statistically significant difference between pre-test (*M*=.93, *SD*= 1.11) and immediate post-test (*M*= 7.68 *SD*= 4.15, p< .05), and between pre-test (*M*=.93, *SD*= 1.11) and delayed post-test (*M*= 2.43, *SD*= 1.80, p< .05). However, it was seen that the delayed post test scores (*M*= 2.43, *SD*= 1.80) were significantly lower than the immediate post-test scores (*M*= 7.68 *SD*=4.15, p<.05) on the retention of the productive lexical bundles as regard to the use of appropriate meaning over time.

Findigs indicated that the participants could significantly increase their productive knowledge of lexical bundles in their free writing in terms of accuracy and semantic appropriacy. However, the results showed that delayed post-test scores were significantly lower than the immediate post-test scores of the participants. That means, the participants could not maintain the accurate and appropriate use of the budles in their argumentative paragraphs over time. However, a significant difference was found between pre-test and

delayed post-test scores both for grammatical accuracy and semantic appropriacy. These results indicate that participants still had some knowledge gain in the use of target bundles in their extended writing three weeks after the instruction but this gain was less than the one right after the intervention.

Content analysis was also conducted to find out whether the explicit instruction of lexical bundles made any difference in the participants' use of target bundles in their argumentative paragraphs. The number of target bundles used in pre-, post- and delayed post-test is given in Table 4.13. (See Appendix I for detailed table for participants)

Table 4.13. *The Occurence of Target Bundles Used in Pre-, Post- and Delayed post-test*

	pretest	posttest	delayedtest
the effect of	1	19	8
one of the	3	8	1
it is important	12	29	13
as well as	1	26	11
most of the	1	16	10
in response to	0	8	2
as a result	4	23	18
the number of	1	19	3
accordingto the	0	17	7
be able to	5	14	0
in other words	1	17	6
part of the	1	7	3
the rest of	0	8	1
the importance of	6	23	10
there was no	0	6	1
the level of	2	16	3
	38	256	97

As seen in Table 4.13, there was a considerable increase in the frequency of the target bundles used by the participants from pre-test (N=38) to immediate post-test (N=256) after the instruction. This finding indicated the explicit instruction was effective in developing the participants' ability to use target bundles in their free writing. However, it is seen that the number of target bundles employed by the participants were substantially in decrease from immediate post-test to delayed post-test (N=97),

A detailed content analysis was conducted in order to find out the number of target bundles used accurately or inaccurately; appropriately or inappropriately among the three tests (See Table 4.14)

Table 4.14. *The Accuracy/ Appropriacy Number of Target Bundles Across Three Tests*

	Pretest				Post-test				Delayed post-test			
Target Bundles	**Accuracy**		**Appropriacy**		**Accuracy**		**Appropriacy**		**Accuracy**		**Appropriacy**	
	Acc	Inacc	App	Inapp	Acc	Inacc	App	Inapp	Acc	Inacc	App	Inapp
the effect of	1		1		17	2	14	5	7	1	5	3
one of the	2	1	2	1	8		8		1		1	
it is important	12		4	8	29		27	2	10	3	10	3
as well as	1		1		26		18	8	11		7	4
most of the		1		1	15	1	16		10		5	5
in response to					8		7	1	2			2
as a result	4		3	1	22	1	22	1	16	2	16	2
the number of	1		1		19		17	2	3		1	2
according to the					17		16	1	5	2	6	1
be able to	5		2	3	14		11	3				
in other words	1		1		15	2	15	2	5	1	5	1
part of the	1		1		7		6	1	3		2	1
the rest of					8		7	1	1		1	
the importance of	5	1	5	1	21	2	18	5	5	5	9	1
there was no					6		6		1		1	
the level of		2	1	1	16		15	1	3		2	1
Total	33	5	22	16	248	8	223	33	83	14	71	26
	38				**256**				**97**			

As shown in Table 4.14, according to the accuracy results, the number of target bundles used accurately in the post-test (248 out of the 256 bundles) increased to a great extent when compared to those in the pre-test (33 out of the 38 bundles). However, the number of target bundles used accurately in the delayed post-test was significanty lower than the immediate post-test (83 out of the 97 bundles), which reveal that there was decrease in their productive ability to use target bundles over time. The table also suggests that as well as the increasing the number of the accuracy number of target bundles, participants also had more varied use of the target bundles in the post-test and delayed post-test ,some of which were never used in the pre-test (i.e. *in response to, according to the, the rest of, there was no*). It can be indicated that the participants made an attempt to use a variety of target bundles after the instruction, which might reveal that the treatment had a significant effect on participants in terms of taking more risks of using the different types of target bundles in their free writing.

According to appropriacy results shown in Table 4.14, there was a major development in the appropriate use of the target bundles by participants in the post-test (223 out of the 256 target bundles) and delayed post-test (71 out of 97 bundles) when compared to those in the pre-test (22 out of the 38 bundles).

When appropriacy results were compared to the accuracy results, it can be concluded that the treatment were more effective on the achievement and retention of participants' productive knowledge of target bundles in terms of grammatical accuracy (248 accurate bundle for post-;83 for delayed post-test) than semantically appropriacy (223 appropriate bundle for post-;71 for delayed post-test). This result might be derived from the processes of form (accuracy), meaning, use (appropriacy) are achieved respectively in the acquisition of any word.

4.4. Participants' Opinions on Explicit Instruction of Lexical Bundles

The second research question intended to investigate Turkish EFL participants' attitudes towards explicit instruction of lexical bundles on augmenting their academic writing skills. Analysis was carried considering the reversed items and calculations are done.The data was analysed and classified under two sub-categories. The first subcategory was the effects of the treatment on personal gains. The analysis showed that

students are positive about knowing lexical bundles and they think that use of bundles and knowing these expressions will help them. (See Table 4.15).

Table 4.15. *Attitudes on Knowing and Using Lexical Bundles*

N=30	SA/A	N	D/SD	M	Std Deviation
	%	%	%		
7. Using lexical bundles helps me point out my ideas more clearly.	90.0	10.0	0.0	4.36	.66
8. Using lexical bundles in writing is meaningful and improves the organization of my writing.	90.0	10.0	0.0	4.36	.66
9. The application of lexical bundles promotes my writing interests.	73.4	26.7	0.0	4.00	.74
10. Using lexical bundles enhances my critical thinking ability.	46.7	30.0	23.4	3.43	1.25
11. I believe that appropriate use of lexical bundles improves the quality of my writing.	93.3	3.3	3.3	4.53	.73
12. Knowing and using lexical bundles will respond to some of my needs in writing.	90.0	10.0	0.0	4.30	.65
13. By knowing lexical bundles, I will be better prepared to work through my future problems in writing.	90.0	10.0	0.0	4.20	.61
14. By using lexical bundles, I will be more successful in academic writing.	86.6	10.0	3.3	4.33	.92
15. Overall, I think lexical bundles are very important and useful for improving my writing ability.	90.0	6.7	3.3	4.40	.77

SD= Strongly Disagree, D= Disagree, N= Neutral, A= Agree, and SA= Strongly Agree

As shown in Table 4.15, a great many of the students (90%) asserted that using lexical bundles in their writing is meaningful and helps pointing out ideas more clearly and improving the organization of writing. About two-third of the participants (73%) reported that the application of the lexical bundles in writing promotes their writing interests. Almost all of the participants (93%) believed that appropppriate use of lexical bundles improves the quality of their writing and a great majority of the participants (90%) also thought that using lexical bundles in writing respond to some of their needs in academic writing. Furthermore, a majority of the participantrs (90%) reported that lexical bundles are very important and useful for improving writing ability and they would be better prepared to work through future problems in writing by the help of lexical bundles. Moreover, they asserted (86%) that they would be more successful by using lexical bundles in their academic writing. However, over half of the participants are neutral or disagree with the idea of that it enhances their critical thinking (53%).

Another subcategory emerged from the participants' responses was their opinions on learning bundles (See Table 4.16)

Table 4.16. *Opinions on Learning Bundles*

N=30	SA/A	N	D/SD	M	Std Deviation
	%	%	%		
1. I didn't have much experience with lexical bundles before this treatment.	80	10	10	4.16	1.08
2. I found this experience with lexical bundles satisfying	80	6.7	13.4	4.00	1.17
3. I will pay more attention to using lexical bundles in my future writings	86.0	13.3	6.6	4.23	1.04
4. I really like to learn more about lexical bundles because my current knowledge about and ability to use is not enough.	53.3	23.3	23.3	3.46	1.13
5. I haven't received sufficient help, training and helpful advice from my writing instructor on appropriate use of lexical bundles.	16.7	10.0	73.3	2.06	1.25
6. Writing instructors should give special importance to teaching lexical bundles.	86.7	10.0	3.3	4.20	.76

SD= Strongly Disagree, D= Disagree, N= Neutral, A= Agree, and SA= Strongly Agree

As shown in Table 4.16, A great majority of participants (80%) did not have much experience with lexical bundles before the instruction. That means, participants gained awareness of lexical bundles in terms of this treatment. By criticising their lexical bundle knowledge, over half of the participants (53%) thought that they really liked to learn more about lexical bundles because their current knowledge and ability to use is not enough. Participants (86%) also reported that they would pay more attention to using lexical bundles in their future writing. 80% of the responses involved the satisfaction of the participations about the treatment. Over seventy percent of the participants disagreed with the idea that they haven't received sufficient help, training, and helpful advice from their writing instructor on the use of lexical bundles. That means, the majority of the students declared (73%) that they received adequate help from their writing teacher about lexical bundles. According to the majority of the students (86%), writing instructors should give a special importance to teaching lexical bundles.

In order to provide a more in-depth exploration of the research problem, additional data were gathered through open ended questions. These open-ended questions were designed by the researcher in order to reveal students' specific opinions and comments

on the explicit instruction through noticing, retrieval and generative activities of lexical bundles on augmenting academic writing skills. Among the students who participated in this study, 100% of them answered these open-ended questions (N=30). The descriptive qualitative analysis resulted in three main themes such as their responses about the benefits of whole treatment and about the activities which were implemented during the treatment and about the negative aspects of this type of instruction (See Appendix F).

In respect to the first open-ended question investigating the benefits of this type of instruction, almost all participants (90%) reported that the treatment was quite beneficial for them to improve their academic writing quality and enabled them to write a more clear, well-organized writings by using the target lexical bundles. They also reported that they realized the importance of using these expressions in writing, and after the treatment, they were more willing to use these expressions,which were the central part of successful writing. One participant said,

" I did not have any experience about lexical bundles before this instruction. By the help of this treatment, I learned about when and how to use these expressions in writing. I believed that this treatment provided me to enhance my writing ability and quality."

Some of the participants (40%) also declared that they learned a wide range of lexical bundles in contexts, in which they express their own ideas more precisely and clearly in writing. One participant asserted,

> "It was very useful for my writing. It helped me to write more meaningful and unified paragraphs. I concentrated more on these expressions by considering not only what to say but also how to say it".

Participants (50%) also reported that it was a long procedure, but it enabled them not only have receptive knowledge of these expressions in texts but also learned how to use them in their writing. They reported that they could analyze all the features of all the target bundles in terms of their forms, uses and functions within the activities. One of the participants told,

" Before this treatment, I had difficulty in understanding reading passages because I did not know most of these expressions, but now, I could understand academic passages better and I recognized the importance of using these target bundles appropriately in my own writings through this instruction".

To sum up, 80% of participants mainly reported that they were unfamiliar with the target lexical bundles before this treatment, but at the end of the treatment, they both recognize these bundles and they were more willing to use these bundles in their academic writing to express their ideas in a more comprehensible and clear way.

In respect to the second open-ended question concerning opinions about the activities implemented during the treatment, some participants (43%) reported that concordancing task, substitution task and writing a paragraph using the target bundles were most useful activities for them among the activities implemented in the treatment. Some of the participants said,

" Concordancing task provided us a large amount of sample sentences of how the target lexical bundles were used in different contexts through which we could learn forms, meanings and functions of the target bundles in authentic materials. Furthermore, substitution task taught us similar expressions and synonyms of the target bundles, which improved our vocabulary knowledge. Additionally, at the end of the worksheet, the task to write a paragraph was very useful for us to improve our writing ability".

According to one participant,

"All the activities were enjoyable and beneficial. However, fill in the blanks activitiy, substitution task and concordancing task have become advantageous leading to retain these expressions for a long time without memorization".

Almost all participants (90%) thought that activities used during the treatment contributed them to understand target bundles much better and these activities demonstrated them how to use bundles exactly in a context.

Nevertheless, according to some participants (16%) , some sample sentences were difficult to understand, among the activities, rewriting the paragraph using key lexical bundles task was long and challenging.

In regards to the last open-ended question concerning the negative aspects of this type of instruction, participants indicated a few problems which were as follows:

1. Unfamiliar words in the contexts: 17% of the participants reported that they had difficulty understanding unknown words which came before and after the target lexical bundles in some activities such as concordancing task. Some of the target bundles were hard and complex for them to understand properly since there were many unknown words used with the target bundles in an overall context. They dealt with these problems by the help of their instructor.
2. Time-consuming: According to some participants (6%), some activities were too long and it was time-comsuming to carry out a wide range of activities in order to learn target bundle.
3. Challenging activities: according to some participants (6%), a few activities such as rewriting a paragraph using a lexical bundle were effortful for them to cope with during the treatment.

However, despite these problems, almost all participants agreed that through this treatment, they not only recognized the importance of lexical bundles in academic writing but also they were more likely to produce the target bundles in their writing properly although they had no experience with lexical bundles before this treatment.

CHAPTER 5
DISCUSSION AND CONCLUSION

5.1. Summary of the Study

The current study set out to investigate the impact of the explicit instruction of lexical bundles through noticing, retrieval and generative activities on the achievement and retention of the receptive knowledge and productive knowledge of lexical bundles in controlled and uncontrolled situations in academic writing abilities of Turkish intermediate EFL students and reveal participants' opinions on the explicit instruction of lexical bundles in academic writing. It is a mixed method embedded design research.The quantitative part of the design is a within group time series design in which participants were involved in one treatment group. The qualitative part of the study followed the quantitative part enabling the researcher provide a better understanding of the intervention by including students' perspectives. The quantitative data were collected through pre-test, immediate post-test and delayed post-test scores of multiple choice test (for measuring receptive knowledge), c-test (for measuring controlled productive knowledge) and argumentative paragraphs (for measuring uncontrolled productive knowledge) in order to measure immediate and delayed instructional effects. The qualitative data were collected through questionnaire including two sections (quantitative and qualitative sections); fifteen closed-ended and three open-ended questions. First of all, the researcher designed pre, while and post reading activities for the target reading passages to be comprehended appropriately. The researcher designed 5 worksheets based on exercises proposed by Nation 2001; Jones & Haywood 2004; Cortes, 2006; Neely & Cortes, 2009; Salazar 2014; Peters & Pauwels, 2015. The treatment lasted six weeks. At the end of the treatment, the participants in the treatment group were administered immediate post-tests and three weeks later, they were administered delayed-post tests. After the treatment, the attitude questionnaire was implemented in order to elicit the participants' attitudes on the treatment. The results of the study found out that explicit instruction of lexical bundles through noticing, retrieval and generative activities has a statistically significant effect not only on the receptive lexical bundle achievement, but also on retention of receptive lexical bundle knowledge over time. Moreover, the results demonstrated that the explicit instruction has a significantly positive impact on the achievement and retention of the productive knowledge of lexical bundles in controlled

and uncontrolled situations. However, the comparison of immediate post-test and delayed post-test scores of the productive knowledge of lexical bundles in uncontrolled situation showed that this productive knowledge was not retained as much as it was gained since there was a significantly decrease in terms of retention of productive knowledge of lexical bundles in uncontrolled situation from immediate post-test to delayed test.

In terms of the results of the qualitative part of the study, participants stated that the treatment was quite beneficial for them to improve their academic writing quality and enabled them to write a more clear, well-organized writings by using the target lexical bundles. Moreover, they realized the importance of using these expressions in writing, and after the treatment, they were more willing to use the target bundles in their writing. Another finding of this present study in respect to the activities implemented in the treatment was that among the noticing, retrieval and generative activities, participants considered all the activities beneficial, but they reported concordancing task, substitution task and writing a sample paragraph task as most beneficial activities. In terms of the negative aspects of this type of instruction, the participants reported that meeting unfamiliar words in contexts, some of the activities being challenging and time-consuming are the problems participants faced throughout the treatment.

5.2. Discussion of the Findings

The first question of this study investigated the effect of explicit instruction through noticing, retrieval and generative activities on the achievement and retention of receptive and productive knowledge of lexical bundles in controlled and uncontrolled situations in the academic writing of EFL students. The results of the study found out that explicit instruction of lexical bundles through noticing, retrieval and generative activities has a statistically significant effect not only on the receptive lexical bundle achievement, but also on retention of receptive lexical bundle knowledge over time. Moreover, the results demonstrated that the explicit instruction has a significantly positive impact on the achievement and retention of the productive knowledge of lexical bundles in controlled and uncontrolled situations. However, the comparison of immediate post-test and delayed post-test scores of the productive knowledge of lexical bundles in uncontrolled situation showed that this productive knowledge was not retained as much as it was gained since there was a significantly decrease from immediate post-test to delayed test.

The findings of the present study are in parallel with the idea of Lewis (1997, p.52) who pinpointed that "teaching helps, precisely when it encourages transition from input to intake". According to him, meaning and message are important, yet exercises and activities provide learners with the opportunities to notice the language, thereby aid acquisiton. Additionally, Woolard (2000, as cited in Richards & Rodgers, 2001) also suggests that teachers should analyze their coursebooks and develop exercises and activities that focus explicitly on lexical phrases to discover these expressions in the Lexical approach entailing 'chunking process' –"the ability to discern clearly the component units of any text" – (Lewis, 1997, p. 58) which is the one of the underlying phenomenons of the current study. In the current study, the participants were engaged in noticing, retrieval and generative activities which have the potential to promote participants' tendency to use the target bundles in their written production.

As regard to the necessity of the explicit instruction on acquiring lexical bundles, Cortes (2004, 2006) suggested that a possible reason of learners' avoidance of using lexical bundles and divergence of lexical bundles between learners and native writers might have derived from a lack of formal instruction of the target bundles in their academic writing. Additionally, Gass & Selinker (2008), in their book, mentions a distinction between breadth and depth of knowledge of words. Breadth of the knowledge signifies the quantity of words learners know, on the other hand, the depth of knowledge means quality of words. Therefore, depth of knowledge include meaning of words, semantic relationship with other words, collocations and so on. In this aspect, Jones & Haywood (2004) pinpointed that if the explicit instruction is implemented including a *deep level of processing*, acquisition will be promoted. For the current study, it is obvious that participants had higher learning gains increasing their receptive and productive knowledge of the target bundles in their writing as a result of explicit teaching.

Gass & Selinker (2008, p.466) point out that "learning words is a recursive process and does not occur instantaneously". In this aspect, one of the important corresponding finding in Li & Schmitt's (2009) longitudinal case study was that the lexical bundles are also found to be acquired incrementally, which has a similar process with that of learning words. This present study yielded the corresponding finding as through the explicit instruction of lexical bundles, learners significantly increased their receptive and productive knowledge of lexical bundles in controlled and uncontrolled situation by the help of exposure and intense practice which included different types of exercises such as

concordancing task, substitution task, rephrasing task, fill in the gap, using in a sentence and writing tasks.

One purpose of the present study was to find out the impact of explicit instruction on the achievement of productive knowledge of lexical bundles in uncontrolled situation in academic writing. In this aspect, Cortes (2006) concentrated on the teaching of lexical bundles to university students in a writing-intensive history class. The researcher constructed five 20 minute micro-lessons in a period of ten weeks. All the students were English native speakers. These micro-lessons included contextualized examples taken from corpus and application exercises such as filling the blanks, multiple choice and inappropriate use examples. The instructor also made informal discussions with students to reveal their reactions to the usage of lexical bundles in writing. The results indicated no differences between pre-post instruction as regard to the production of lexical bundles but there was an awareness on these multi-word combinations. Based on this finding, Cortes (2006) argued that the reason might be derived from the two factors: the length of micro-lessons which were not long enough for students to enhance the productive knowledge of lexical bundles. The second factor might have been the activity types, which might not be approppriate for students to enhance the use of these expressions in their writing. Similar to the findings of Cortes (2006), the participants in Jones & Haywood (2004) study showed no significant improvement of the productive knowledge of lexical bundles in uncontrolled situation in academic writing through explicit instruction. In their study, Jones & Haywood (2004) attaches this outcome to two different factors; the first factor was time and curriculum constraints (there were only two weeks between two writing test) and the second factor was that the researchers mainly focused noticing and retrieval activities but not full generative use (i.e. gap fill and analysis exercises) among Nation's (2001) three psycological aspects as there was time constraints. Čolović-Marković (2012) had the similar findings with those of Cortes (2006) and Jones & Haywood (2004) although her study attempted to correct the limitations of foregoing factors involved in the studies of these researchers in following ways:the treatment was a period of 8 weeks; the participants had multiple readings for writing essays; they were involved in weekly activities including extended exposure to the target bundles. Čolović-Marković (2012) concludes that the outcome might have been because the students need more exposure, more practice as well as learners' motivational factors. Moreover, according to interview results of Čolović-Marković's (2012) study, it

was revealed that the type of practice including matching and c-test were beneficial but not effective enough for participants to convert their receptive knowledge into the productive mastery of target bundles in writing. Based on these findings, the reason of the significant achievement results on productive knowledge obtained from the present study might stem from that the participants had a longer instructional period (180 min for each session, 6 session in total) and they were engaged in a more variety of generative activites (e.g. substitution task, use in a sentence, rewriting the paragraphs using key bundles and writing a paragraph) throughout the treatment. Furthermore, the researcher implemented two review sessions (180 min for each session) after teaching all the target bundles. All these factors might have had a significant effect on the participants' achievement of productive knowledge of lexical bundles in their academic writing.

Another purpose of this study was to find out whether explicit instruction of lexical bundles through noticing, retrieval and generative activities had a significant effect on the retention of participants' receptive and productive knowledge of lexical bundles in their academic writing. The results of the study yielded significant results in terms of the retention of participants' receptive knowledge of lexical bundles. In this respect, the results of this study can be compared to the results of Laufer & Hulstijn's (2001, as cited in Gass & Selinker, 2008) study. They designed three tasks with different levels of involvement (reading comprehension with glosses in the margin, reading comprehension plus fill in the blank, and writing a composition using target words). The researchers predicted writing a composition included the greatest involvement. At the end of their study, it was concluded that "the greater use that learners make of vocabulary items, the greater the likelihood that they will retain these items both in form and meaning" (Gass & Selinker, 2008, p.466), which this idea could explain the findings of the present study as participants could retain the receptive knowledge of lexical bundles at high level and the productive knowledge of them to some extent because of their high involvement through generative activities.

On the other hand, in terms of the retention of the productive knowledge of lexical bundles in uncontrolled situation, although the study yielded significant results between the pre-test and the delayed post-test, the comparison of the immediate post-test and delayed post-test showed that this productive knowledge was not retained as much as it was gained in terms of accuracy and appropriacy over time since there was a significant decrease from immediate post-test to delayed test. One reason of this finding might result

from the decrease of learners' motivation levels to the end of the semester. The findings of Dörneyei, Durow and Zahan (2004) who conducted a study with seven international post-graduate students at English speaking university, indicated that motivation (along with other factors such as language aptitude and sociocultural adaptation) had an effect on the acquisition of formulaic sequences. Based on this finding, the reason of the decrease of participants' retention of productive knowledge might have been that the writing task (argumentative paragraphs) and other tasks might have gradually become exhausting which might cause the decrease of motivation among the students at the end of the treatment.

Another finding of the present study was that as well as the increase in the number of the target bundles, participants were able to use a more variety of target bundles in their writing after the training. In this respect, this type of instruction might have some contributions to the learners' problems as unveiled in the study of Adel & Erman (2012) which showed that non-native speakers showed an inclination to use more limited and less diversed lexical bundles than native speakers. This finding of the present study is also consistent with the findings of Alhassan & Wood's (2015) study which investigated the effectiveness of explicit instruction of formulaic sequences on promoting second language learners' academic writing skills. The findings of the study indicated that explicit instruction of formulaic sequences resulted in a statistically significant increase in the number of target formulaic sequences in the academic writing of second language learners in the post-test and delayed post-test as compared with the pre-test results.The researchers found out that explicit instruction along with the intense practice not only fosters the acquisition of target bundles but also provides retention of the target bundles in writing. Although the researchers' significant results on the achievement and retention of productive knowledge of target bundles in writing is in line with the finding of the present study, there was a difference between the two studies in terms of retention of target bundles in writing. In their study, the absence of any statistically significant difference between the pos-test and delayed post-test showed that participants successfully retain the target bundles over time through explicit instruction. On the other hand, in the present study, the significant difference between the post-test and delayed post-test demonstrated productive knowledge in uncontrolled situation was not retained as much as it was gained. This difference might have derived from the factors that the

participants in Alhassan & Wood's (2015) study came from different language backgrounds and proficiency levels as well as motivational factors.

The second research question of this study was to find out the participants' opinions on the explicit instruction of lexical bundles through noticing, retrieval and generative activities on augmenting their academic writing skills. One finding of this present study in respect to the activities implemented in the treatment was that among the noticing, retrieval and generative activities, participants considered concordancing task, substitution task and writing a sample paragraph task as most useful activities. According to the findings from the open-ended questions, the reasons why they favoured these activities most were that concordancing task provided them how the target bundles are used in different context; substitution task offered them to learn synonyms of the target bundles; writing task was useful to improve their writing ability. Parallel to this finding, Yoon & Hirvela (2004) investigating students' attitudes towards corpus-based language learning activities in L2 writing, they indicated that the participants found corpus activities to be beneficial to acquire usage of words in context, which lead to their increased confidence in their writing. The finding of the present study is also in line with the suggestion of Jones & Haywood (2004, p. 272), favoring concordancing tasks, which indicate that "the use of concordance texts could be extremely helpful since they allow multiple encounters with a lexical item in a variety of contexts […] It requires a deep and thoughtful level of mental processing".

Participants further stated that the treatment was quite beneficial for them to improve their academic writing quality and enabled them to write a more clear, well-organized writings by using the target lexical bundles. Moreover, they realized the importance of using these expressions in writing, and after the treatment, they were more willing to use the target bundles in their writing. This finding is in parallel with the finding of Čolović-Marković (2012) which found out that the participants were more willing to use the target bundles as the target bundles helped them to express their ideas precisely.
In the current study, when the total number of this target bundle used appropriately was considered across three tests, there was a substantial difference across three tests. Therefore, it can be indicated that participants might avoid using the target bundles in their writing in the pre-test since they did not want to take risks not to make mistakes whereas in the post- and delayed post-test, the participants were more likely to take risks to integrate the bundles in their writing. Another reason might be the absence of their

knowledge of lexical bundles as they did not have much experience with lexical bundles before the treatment. It is also seen that raising learners' awareness of lexical bundles enhances their tendency to use target bundles more frequently in their writing.This finding reveals the notion of *risk-taking* which signifies "a situation where an individual has to make a decision involving choice between alternatives of different desirability; the outcome of the choice is uncertain; there is a possibility of failure" (Beebe, 1983, p.39). Therefore, after the treatment, the participants of the present study became more eager to use the target bundles in their writing in spite of the possibility of making mistakes, which is the optimal way of language learning.

In terms of the negative aspects of this type of instruction, the findings of the present study suggest that the participants had some difficulties in understanding unfamiliar words came before or after the target bundles in concordancing task . Another finding was that some activities were too long and time-consuming to carry out a wide range of activities to learn a target bundle. The last problem was that the treatment had a few challenging activities which were effortful for participants to deal with in the treatment (e.g. rewriting paragraph using target bundles task). The reason of these problems might be that participants had no such experience with lexical bundles and concordancing tasks in which they were involved in authentic contexts before the treatment. However, in spite of these difficulties reported from questionnaire, learners improved their receptive and productive writing skills at significant level.

This present chapter focuses on the summary of the current study, pedagogical implications and limitations of the study. Suggestions for further studies are presented at the end of the chapter.

5.3. Pedagogical Implications

Lexical bundles are necessary building blocks for academic writing (Biber & Conrad, 1999; Cortes, 2006; Hyland, 2008a; Li & Schmitt, 2009). The frequent use of lexical bundles in academic writing means to be a competent language user in writing, the absence of these bundles signifies the signal of a novice writer (Haswell, 1991; Cortes, 2004; Hyland, 2008a; Chen & Baker, 2010). However, simple exposure to these multiword expressions does not provide acquisition of these lexical items (Cortes, 2004). Therefore, evidenced by the present study, writing instructors should notice the importance of the use of lexical bundles in academic writing skills and pay more attention

to explicit instruction in which they can integrate a wide range of activities appealing to three psychological processes of Nation (2001) –noticing, retrieval and generative use- in order to provide development on learners' academic writing ability receptively and productively.

Studies demonstrated that lexical bundles are not acquired in a natural way, even simple exposure to the lexical bundles is not enough for learners to use the lexical bundles actively (Cortes, 2004, 2006; Karabacak &Qin, 2012; Wei& Lei, 2011). Even advanced learners have substantial problems on lexical bundles (Bishop, 2004; Karabacak & Qin, 2012). Entailing deep level of processing, explicit teaching of lexical bundles has been one of the solutions the language instructors might use to foster learners' acquisition process of lexical bundles in their writing.

It is also obvious that lexical bundles are acquired incrementally just like single words. (Schmitt, 2000; Nation, 2001; Schmitt et al., 2004; Li & Schmitt, 2009; Čolović-Marković, 2012). Based on this fact, learners are in need of a large amount of repeated exposures in order to acquire lexical bundles. In this aspect, noticing, retrieval and generative activities offer a wide range of opportunities for learners not only to improve their noticing abilities but also to promote productive skills of lexical bundles as well as to internalize these expressions in academic writing. Concordancing tasks (Neely & Cortes, 2009; Salazar, 2014), fill in the blank examples (Neely & Cortes, 2009), rephrasing (Peters & Pauwels, 2015), substitution tasks (Salazar, 2014) or writing activities (Nation, 2001) are some of many activities that writing instructors can use in the classroom to enhance learners' successful acquisition and retention of this language items.

One of the reasons that students might avoid using lexical bundles in their writing might be they don't want to take risks in order not to make mistakes by using the lexical bundles (Cortes, 2004). However, the present study demonstrated that although learners did not have any experience with lexical bundles before the treatment, after the explicit instruction of lexical bundles, learners are more likely to produce lexical bundles in their actual production ,which signifies that language instructors should introduce learners the lexical bundles and encourage them to use bundles in their writing (Cortes, 2004)

Before teaching lexical bundles, language instructors should define a criteria for selecting which lexical bundles worth teaching by considering students' needs in the teaching procedure. Principles like frequency, appearance in the literature and textbooks,

frequency and pragmatic functions, teachability / learnability can be among the criteria that the instructors should take into account (Byrd & Coxhead, 2010; Schmitt et al., 2004)

Lastly, it is also important for material developers and writing course designers, that they can design materials integrating lexical bundles in textbooks of writing courses in language programs by providing limited or expanded contexts from Coca in order to enhance in-depth knowledge of the use and functions of lexical bundles.

5.4. Limitations and Suggestions for Further Research

The first limitation was the limited number of participants involved in the study. Thirty students participated in the study. The findings need to be treated with some caution. More participants might have been involved in order to make wider generalizations to the population. Therefore, further studies are suggested to confirm the findings obtained from the study.

The second limitation was that because of the time constraints, the delayed post-test was administered three weeks after the instruction. It can be suggested that more delayed post-test can be administered after a period of two or three months so as to measure long-term effects in further studies.

The participants were intermediate level preparatory class students majoring at the different departments (Engineering Sciences and Social Sciences). It might provide different results with higher proficiency level students at EAP programs with discipline-bound target bundles (Cortes, 2006) in order to respond their needs at their particular area. Therefore, it is suggested that further studies could be done with the similar research design but different proficiency levels at EAP programs.

Another limitation was the absence of control group. Although statistically significant differences were observed through pre- post and delayed post-test measures over time, a control group can be employed in the further studies in order to measure learning gains between groups.

In respect to the learners' problems concerning a series of unknown words because of the authentic context in the concordancing task, captions and glosses for the challenging words can be inserted in these activities in further research to avoid these problems and provide more effective retention of productive knowledge of lexical bundles in uncontrolled situation in academic writing.

REFERENCES

Ädel, A. & Erman, B. (2012). Recurrent word combinations in academic writing by native and non-native speakers of English: A lexical bundles approach. *English for Specific Purposes*, 31(2), 81-92.

AlHassan, L. & Wood, D. (2015). The effectiveness of focused instruction of formulaic sequences in augmenting L2 learners' academic writing skills: A quantitative research study. *Journal of English for Academic Purposes*, 17, 51-62.

Allen, D. (2009). Lexical bundles in learner writing: An analysis of formulaic language in the ALESS learner corpus. *Komaba Journal of English Education*, 1, 105-127.

Altenberg, B. (1998). On the phraseology of spoken English: The evidence of recurrent word-combinations. A.P. Cowie (Ed.), in *Phraseology: theory, analysis and applications* (pp.101-122). Oxford: Oxford University Press.

Bal, B. (2010). *Analysis of Four-word Lexical Bundles in Published Research Articles Written by Turkish Scholars*. Unpublished MA thesis. USA: Georgia State University.

Beebe, L. (1983). Risk-taking and the language learner. H. W. Seliger and M. Long (Eds.), in *Classroom oriented research in second language acquisition* (pp. 39-65). Rowley, MA: Newbury House.

Biber, D. (2006). *University language: A corpus-based study of spoken and written registers* (Vol. 23). Amsterdam: John Benjamins Publishing.

Biber, D. & Barbieri, F. (2007). Lexical bundles in university spoken and written registers. *English for Specific Purposes*, 26 (3), 263-286.

Biber, D. & Conrad, S. (1999). Lexical bundles in conversation and academic prose. H. Hasselgard and S. Oksefjell (Eds.), in *Out of corpora* (pp. 181-190). Amsterdam: Rodopi

Biber, D., Conrad, S. & Cortes, V. (2004). If you look at…: Lexical bundles in university teaching and textbooks. *Applied Linguistics*, 25 (3), 371-405.

Biber, D., Johansson, S., Leech, G., Conrad, S. & Finegan, E. (1999). *Longman grammar of spoken and written English*. Harlow, England: Longman

Binkai, J. (2012). An Empirical Study on Corpus-driven English Vocabulary Learning in China. *English Language Teaching*, *5*(4), 131-137

Bishop, H. (2004). *The noticing of formulaic sequences by second language readers*. Unpublished doctoral dissertation. USA: University of Wisconsin- Madison.

Butler, C. (1997). Repeated word combinations in spoken and written text: some implications for Functional Grammar. C. Butler, J. Connolly, R. Gatward, and M. Wismans (Eds), in *A fund o f ideas: Recent development in Functional Grammar* (p. 60-77). Amsterdam: Institute for Functional Research into Language and Language Use.

Byrd, P. & Coxhead, A. (2010). On the other hand: Lexical bundles in academic writing and in the teaching of EAP. *University of Sydney Papers in TESOL*, 5 (5), 31-64.

Chan, T. P. & Liou, H. C. (2005). Effects of web-based concordancing instruction on EFL students' learning of verb–noun collocations. *Computer Assisted Language Learning*, 18 (3), 231-251.

Chen, Y. H. & Baker, P. (2010). Lexical bundles in L1 and L2 academic writing. *Language Learning & Technology*, 14 (2), 30-49.

Chujo, K., Utiyama, M., & Miura, S. (2006). Using a Japanese-English parallel corpus for teaching English vocabulary to beginning-level students. *English Corpus Studies*, 13, 153-172.

Cohen, J. (1988). *Statistical power analysis for the behavioural sciences*. Hillsdale, NJ: Lawrence Earlbaum Associates.

Colovic-Markovic, J. (2012). *The effects of explicit instruction of formulaic sequences on second-language writers.* Unpublished doctoral dissertation.Utah: The University of Utah

Cortes, V. (2002). Lexical bundles in academic writing in history and biology. Unpublished doctoral dissertation. USA: Northern Arizona University.

Cortes, V. (2004). Lexical bundles in published and student disciplinary writing: Examples from history and biology. *English for Specific Purposes*, 23 (4), 397-423.

Cortes, V. (2006). Teaching lexical bundles in the disciplines: An example from a writing intensive history class. *Linguistics and Education*, 17 (4), 391-406.

Coxhead, A. (2000). A new academic word list. *TESOL Quarterly*, 34 (2), 213-238.

Coxhead, A. & Byrd, P. (2007). Preparing writing teachers to teach the vocabulary and grammar of academic prose. *Journal of Second Language Writing*, 16 (3), 129-147.

Cowie, A. P. (Ed.) (1998). *Phraseology: Theory, analysis, and applications*. Oxford: Oxford University Press.

Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative*. Boston: Pearson education

Creswell, J.W. & Miller, D.L. (2000). *Determining validity in qualitative inquiry:theory into practice,* 39 (3), 124-130.

Davies, M. (2008). The corpus of contemporary American English (COCA) available at http://corpus.byu.edu/coca/.

De Cock, S. (1998). A Recurrent Word Combination Approach to the Study of Formulae in the Speech of Native and Non-Native Speakers of English. *International Journal of Corpus Linguistics*, 3(1), 59-80.

Dörnyei, Z., Durow, V. & Zahran, K. (2004) Individual differences and their effects on formulaic sequence acquisition. N. Schmitt (Ed.), in *Formulaic Sequences Acquisition, Processing and Use*, (pp.87-106). Philadelphia: John Benjamins.

Ellis, R. (2008). Explicit form-focused instruction and second language acquisition. B. Spolsky & F. M. Hult (Eds.), in *The handbook of educational linguistics* (pp. 437-456). Oxford: Blackwell.

Ellis, N. C., Simpson-Vlach, R., & Maynard, C. (2008). Formulaic language in native and second language speakers: psycholinguistics, corpus linguistics, and TESOL. *Tesol Quarterly*, 42 (3), 375-396.

Ergin, I. (2013). *The effect of explicit teaching of formulaic language on Turkish English as a foreign language (EFL) learners' writing performance*. Unpublished master's thesis. Ankara: Bilkent University.

Erman, B. & Warren, B. (2000). The idiom principle and the open choice principle. *Text-Interdisciplinary Journal for the Study of Discourse*, 20 (1), 29-62

Firth, J. (1957). *Papers in Linguistics: 1934-1951*. London: Oxford University Press

Fraenkel J. R., & Wallen, N. E. (2009). *How to design and evaluate research in education*. (7th Edition). McGrow- Hill Higher Education.

Gass, S. M. & Selinker, L. (2008). *Second language acquisition: An introductory course*. (Third Edition). New York: Routledge.

Gitsaki, C. (1999). Teaching English collocations to ESL students. *NUCB Journal of Language Culture and Communication*, 1 (3), 27-34.

Granger, S. (1998). Prefabricated patterns in advanced EFL writing: Collocations and formulae. A.P. Cowie (ed.), in *Phraseology: Theory, Analysis and Applications* (pp. 145-160). Oxford: Oxford University Press

Han, Z. (2004). *Fossilization in adult second language acquisition*.UK: Multilingual Matters.

Haswell, R. H. (1991). *Gaining ground in college writing: Tales of development and interpretation*. Dallas: Southern Methodist Univ Press.

Howarth, P. (1998a). Phraseology and second language proficiency. *Applied Linguistics*, 19 (1), 24-44.

Howarth, P. (1998b). The phraseology of learners' academic writing. A.P. Cowie (Ed.), in *Phraseology: theory, analysis and applications* (pp**.** 161-186). Oxford: Oxford University Press

Hyland, K. (2004). *Disciplinary discourses: social interactions in academic writing*. USA: University of Michigan Press.

Hyland, K. (2008a). As can be seen: Lexical bundles and disciplinary variation. *English for Specific Purposes*, 27 (1), 4-21.

Hyland, K. (2008b). Academic clusters: Text patterning in published and postgraduate writing. *International Journal of Applied Linguistics*, 18 (1), 41-62.

Jablonkai, R. (2010). English in the context of European integration: A corpus-driven analysis of lexical bundles in English EU documents. *English for Specific Purposes*, 29 (4), 253-267.

Jafarpour, A. A. & Koosha, M., (2006). Data-driven learning and teaching collocation of prepositions: The case of Iranian EFL adult learners. *Asian EFL Journal*, 8 (4), 192-209

Jones, M., & Haywood, S. (2004). Facilitating the acquisition of formulaic sequences. N. Schmitt (Ed.), in *Formulaic sequences acquisition, processing and use*, (pp.269-292). Philadelphia: John Benjamins.

Kachru, Y. (2009). Academic writing in world Englishes: The Asian context. K. Murata & J. Jenkins (Eds), in *Global Englishes in Asian Contexts* (pp.111-130). Basingstoke: Palgrave-Macmillan.

Karabacak, E. & Qin, J. (2013). Comparison of lexical bundles used by Turkish, Chinese, and American university students. *Procedia-Social and Behavioral Sciences*, 70, 622-628.

Kazemi, M., Katiraei, S., & Rasekh, A. E. (2014). The Impact of Teaching Lexical Bundles on Improving Iranian EFL Students' Writing Skill. *Procedia-Social and Behavioral Sciences*, 98, 870-875.

Latifi, M. A., & Afraz, S. (2015). The Effect of Explicit Instruction of Lexical Bundles on Developing Writing Skill in Pre-Intermediate Efl Learners. *International Journal of Review in Life Sciences*., 5(8), 84-94.

Laufer, B. (1994). The lexical profile of second language writing: does it change over time? *RELC Journal*, 25 (2), 21-33.

Laufer, B. & Shmueli, K. (1997). Memorizing new words: Does teaching have anything to do with it? *RELC Journal, 28*, 89-108.

Lewis, M. (1997). *Implementing the lexical approach: Putting theory into practice*. Heinle: Cengage Learning.

Li, J. & Schmitt, N. (2009). The acquisition of lexical phrases in academic writing: A longitudinal case study. *Journal of Second Language Writing*, 18 (2), 85-102.

Long, M. H. (1983). Does a second language instruction make a difference? A review of research. *Tesol Quarterly*, 17 (3), 359-382.

Martinez, R. & Schmitt, N. (2012). A phrasal expressions list. *Applied Linguistics*, 33 (3), 299-320.

Moon, R. (1998). *Fixed expressions and idioms in English: A corpus-based approach*. NewYork: Oxford University Press.

Nation, I.S.P. (2001) *Learning vocabulary in another language*. Cambridge: CUP

Nattinger, J. R. & DeCarrico, J. S. (1992). *Lexical phrases and language teaching*. Oxford: Oxford University Press.

Neely, E. & Cortes, V. (2009). A little bit about: analyzing and teaching lexical bundles in academic lectures. *Language Value*, 1(1), 17-38.

Nekrasova, T. M. (2009). English L1 and L2 speakers' knowledge of lexical bundles. *Language Learning*, 59 (3), 647-686.

Nesi, H., & Basturkmen, H. (2006). Lexical bundles and discourse signalling in academic lectures. *International Journal of Corpus Linguistics*, 11 (3), 283-304.

Nesi, H., & Basturkmen, H. (2009). Lexical bundles and discourse signalling in academic

lectures. J. Flowerdew & M. Mahlberg (Eds), in *Lexical cohesion and corpus linguistics* (pp. 23-43). Amsterdam: Johns Benjamin Publishing Company.

Nguyen, H. T. H. (2014). *The acquisition of formulaic sequences in high-intermediate ESL learners*. Unpublished doctoral dissertation. Pennsylvania: University of Pennsylvania.

Öztürk, Y. (2014). *Lexical bundle use of Turkish and native Englih writers: A corpus based study.* Unpublished MA thesis. Eskişehir: Anadolu University Graduate School of Educational Sciences.

Pang, W. (2010). Lexical bundles and the construction of an academic voice: A pedagogical perspective. *Asian EFL Journal*, 47, 1-13.

Paribakht, T. S. & Wesche, M. B. (1993). Reading comprehension and second language development in a comprehension-based ESL program. *TESL Canada Journal*, 11 (1), 09-29.

Paribakht, T., & Wesche, M. (1997). Vocabulary enhancement activities and reading for meaning in second langue vocabulary acquisition. J. Coady & T. Huckin (Eds.) in *Second language vocabulary acquisition* (pp. 174-200). Cambridge: Cambridge University Press.

Pawley, A. & Syder, F. H. (1983). Two puzzles for linguistic theory: nativelike selection and nativelike fluency. J. Richards & R. Schmidt (Eds), in *Language and communication* (pp. 191-226). London: Longman

Pérez-Llantada, C. (2014). Formulaic language in L1 and L2 expert academic writing: Convergent and divergent usage. *Journal of English for Academic Purposes*, 14, 84-94

Peters, E. & Pauwels, P. (2015). Learning academic formulaic sequences. *Journal of English for Academic Purposes*, 20, 28-39.

Richards, J. C. & Rodgers, T. S. (2001). *Approaches and methods in language teaching*. Cambridge: Cambridge University Press.

Richards, J. C. & Schmidt, R. W. (2013). *Longman dictionary of language teaching and applied linguistics*.(Fourth Edition). Great Britain: Pearson Education Limited.

Salazar, D. (2014). *Lexical bundles in native and non-native scientific writing: Applying a corpus-based study to language teaching* (Vol. 65). Amsterdam / Philadelphia: John Benjamins Publishing Company.

Seesink, M. T. (2007). *Using blended instruction to teach academic vocabulary collocations: A case study*. Unpublished doctoral dissertation. USA: West Virginia University.

Sinclair, J. (1991). *Corpus, concordance, collocation*. Oxford: Oxford University Press.

Sinclair, J. (2004). *Trust the text: Language, corpus and discourse*. London: Routledge.

Schmitt, N., (2000). *Vocabulary in language teaching*. Cambridge, UK: Cambridge University Press.

Schmitt, N. & Carter, R. (2004). Formulaic sequences in action. N. Schmitt (Ed.), in *Formulaic sequences acquisition, processing and use*, (pp.1-22). Philadelphia: John Benjamins.

Schmitt, N., Dornyei, Z., Adolphs, S. & Durow, V. (2004). Knowledge and acquisition of formulaic sequences: a longitudinal study. N. Schmitt (Ed.), in *Formulaic sequences acquisition, processing and use*, (pp.55-86). Philadelphia: John Benjamins.

Simpson-Vlach, R. & Ellis, N. C. (2010). An academic formulas list: New methods in phraseology research. *Applied Linguistics*, 31 (4), 487-512.

Sun, Y. C. & Wang, L. Y. (2003). Concordancers in the EFL classroom: Cognitive approaches and collocation difficulty. *Computer Assisted Language Learning*, 16 (1), 83-94.

Vargo, M. & Blass, L. (2013). *Patways 2: reading, writing and critical thinking*. US: National Geographic Learning.

Wei, Y. & Lei, L. (2011). Lexical bundles in the academic writing of advanced Chinese EFL learners. *RELC journal*, 42 (2), 155-166.

Wray, A. (2002). *Formulaic language and the lexicon*. UK: Cambridge University Press.

Wray, A. (2008). *Formulaic language: Pushing the boundaries*. Oxford: Oxford UniversityPress.

Yoon, H. & Hirvela, A. (2004). ESL student attitudes toward corpus use in L2 writing. *Journal of Second Language Writing*, 13 (4), 257-283.

Zimmerman, C. B. (1997). Do reading and interactive vocabulary instruction make a difference? An empirical study. *TESOL Quarterly*, 31 (1), 121-140.

Appendix A

Gönüllü Katılım Formu

Bu çalışma Anadolu Üniversitesi Eğitim Bilimleri Enstitüsü Yabancı Diller Eğitimi Anabilim Dalı İngilizce Öğretmenliği Programında doktora yapmakta olan Serpil UÇAR tarafından yürütülmektedir. Bu çalışmanın amacı akademik yazma becerilerinizi geliştirmede sözcük öbeklerinin farkındalık, geri kazanım ve üretici aktiviteleri aracıyla yapılan öğretimin etkisi olup olmadığını incelemektir. Çalışmaya katılım tamamen gönüllülük esasındadır. Ve elde edilen sonuçlar sadece bilimsel amaçlar için kullanılacaktır. Bu araştırma sonunda hazırlanacak olan herhangi kaynakta kimliğinizle ilgili hiçbir bilgi kullanılmayacaktır. Çalışmaya katılımınız için teşekkür ederim.

Serpil UÇAR

Tez Danışmanı: Prof. Dr. İlknur KEÇİK

Anadolu Üniversitesi /Eskişehir

Bu formdaki bilgileri okudum ve çalışmaya katılmayı kabul ediyorum.

AD ve SOYAD:

İMZA:

TARİH:

Appemdix B Target Bundles

TARGET BUNDLES	*FUNCTION*	*STRUCTURE*	*FREQUENCY f*	*Text No*
1. **the effect of**	discourse organizer	Noun phrase + of phrase fragment	52.38	**1**
2. **one of the**	referential	Noun phrase + of phrase fragment	279.63	**1**
3. **it is important**	stance	Anticipatory *it* + verb phrase/adjective phrase	59.43	**1**
4. **as well as**	discourse organizer	other expression	373	**1**
5. **most of the**	referential	Noun phrase + of phrase fragment	92.99	**2**
6. **in response to**	referential	Other prepositional phrase	47.13	**2**
7. **as a result**	discourse organizer	Other prepositional phrase fragment	123.98	**2**
8. **the number of**	referential	Noun phrase + of phrase fragment	170.52	**2**
9. **according to the**	stance	Other prepositional phrase	82.52	**3**
10. **be able to**	stance	Predicative adjective + to clause	85.60	**3**
11. **in other words**	discourse organizer	Other prepositional phrase	58.05	**3**
12. **part of the**	referential	Noun phrase + of phrase fragment	170.45	**3**
13. **the rest of**	referential	Noun phrase + of phrase fragment	50.44	**4**
14. **the importance of**	stance	Noun phrase + of phrase fragment	109.73	**4**
15. **there was no**	referential	pronoun/noun phrase + *be* (+ . . .)	41.25	**4**
16. **the level of**	referential	Noun phrase + of phrase fragment	58.09	**4**

Appendix C

MULTIPLE CHOICE TEST FORMAT (PRE / POST TEST)
RECEPTIVE MEASUREMENT INSTRUMENT OF LEXICAL BUNDLES

Dear Students,

Read the following sentences taken from authentic academic texts in COCA (Corpus of Contemporary American English) and circle the best choice. If you do not know the answer, please do not try to guess and circle (e) " I don't know."

1. A few months later, she was dead due to _____ the chemicals on her brain.
   a. the effect of
   b. the effective of
   c. the effects on
   d. the effectful about
   e. I don't know

2. I started spending my lunch period in the library, which was _____ best decisions I have made in a while.
   a. one all the
   b. one of the
   c. most of the
   d. both of the
   e. I don't know

3. Physical health is an important component of optimal living. _____ even for students with physical disabilities to reach their full potential in physical health.
   a. There seems importance
   b. It looks importance
   c. it is important
   d. it is urgent
   e. I don't know

4. The students had positive interaction with each other _____ with the facilitator.
   a. as well as
   b. as good as
   c. so well as
   d. as far as
   e. I don't know

5. This circumstance provides us with the chance to get to know them better than _____ other staff members do.
   a. more of the
   b. much of the
   c. any of the
   d. most of the
   e. I don't know

6. Michelle read aloud something informational each day _____ students'questions and interests.

a. on response to
b. under response to
c. in response to
d. in part to
e. I don't know

7. Research has consistently indicated that when students with disabilities participate in WBLEs (e.g., career awareness, work study, paid employment), their postschool outcomes are likely to improve a lot. _____, it is critical for students with disabilities to have these experiences as part of their high school transition services.
a. as a result
b. as a view
c. as a part
d. as a consequent
e. I don't know

8. Plan _____ readings students must do to gain a deep understanding.
a. the numerous of
b. the number on
c. the number of
d. the amount on
e. I don't know

9. Many people died in the Mediterranean while trying to reach Europe _____ survey.
a. according to the
b. accordance to the
c. on the other hand
d. according to me
e. I don't know

10. To be a successful reader, a student must _____ recognize new words he/ she may encounter.
a. being able to
b. become able on
c. be able to
d. be able in
e. I don't know

11. Students will meaningfully connect the music to the images they view. _____, the music will seem to be telling the same story.
a. on the other view
b. on the other part
c. on the other standpoint
d. in other words
e. I don't know

12. The students focused on this _____ text during their conversations.
a. parts of the
b. part of the
c. point on the

d. apart of the
e. I don’t know

13. I felt extremely calm and at peace with everything. For _____ the day I found myself breathing deeper and feeling more calm, rather than being stressed as usual, and that is the biggest way it impacted my life.
a. the rest of
b. the remnant of
c. the rest over
d. the rest on
e. I don’t know

14. When parents can check homework and just talk to their children about _____ their schooling, teaching lessons are reinforced.
a. with the important of
b. the significant over
c. the importance of
d. the crucial over
e. I don’t know

15. _____ way I was going to allow them to push me out of this band.
a. There is no
b. There was no
c. It was no
d. It is any
e. I don’t know

16. I really liked the feeling of calmness and _____ concentration whenever practice was over.
a. the level on
b. the grade about
c. the grade to
d. the level of
e. I don’t know

Appendix D

C-TEST FORMAT (PRE / POST-TEST)

PRODUCTIVE MEASUREMENT INSTRUMENT OF LEXICAL BUNDLES IN CONTROLLED SITUATION

Dear Students,

Read the extracts below taken from authentic academic texts in COCA (Corpus of Contemporary American English). Each statement includes words with a missing part. Look at the context and fill in the blanks with the missing part of the words considering their synonyms in brackets.

1. Sleep-related variables (e.g. sleep deficiency, sleep quality, sleep habits) have been shown to influence performance of students and workers. Therefore, the purpose of this study was to determine **t__ eff___ o__** sleep on academic and job performance. **(the influence of)**

2. "To be, or not to be, that is the question". (Sheakspeare & Pearce, 2008, p.44). This famous phrase from the third act of Shakespeare's Hamlet is **o__ o_ th__** most recognizable quotes of all time. **(a particular thing/person)**

3. Unfortunately, some teachers do not use enough digital resources for students to derive the full benefits of technology. One easy way to avoid this problem is by assigning students projects requiring the creation of digital stories. This article discusses why **i_ i_ im_____** for teachers to use digital resources and how digital storytelling projects can be used to help students improve in reading and writing. **(crucial)**

4. Interviews were conducted with each participant prior to the start of the study **a_ we__ a_** at its conclusion. The four questions asked of students were on attitudes and personal preferences. **(in addition to)**

5. University life contains many difficulties that students must overcome in order to succeed. These may differ with each student and with each institute as well. This research concentrates on the general difficulties which are faced by **mo__ o_ t__** students. **(the majority of)**

6. The teacher typically did not link the responses of learners. Learners offered a one-on-one response, but mainly **i__ res___ t__** what the teacher said. **(in answer to)**

7. Most new teachers typically have little support from other teachers. **A__ a re___**, teachers have few opportunities to manage student behaviour or design lesson plans**.(consequently)**

8. Most online writing studies are qualitative or mixed methods research designs. The duration of most study is short and **th_ nu____ o_** participants in most studies is small. **(quantity)**

9. A specific improvement has been achieved in the country. **Acc_____ t__ th__** 2012 results of the PISA exam, Turkey achieved 11 points of improvement in reading. **(based on the)**

10. Students have to know the word in many ways and they have to **b__ ab__ t_** spell it, too. **(having the power or skill to do sth)**

11. The choice exercise was repeated for each participant. **I_ ot___ w___**, each participant was invited to complete two choice exercises with four combinations in each exercise. Most participants completed both choice exercises, although some did not**.(that is to say)**

12. An essential **pa__ o_ th__** process for beginners involves learning the alphabetic system, that is letter-sound relationship and spelling patterns. **(section)**

13. The doctors were not able to answer her questions. This is going to be affecting **th__ re__ o_** her life. **(remainder)**

14. I always loved science. We talked with other adults about **t__ im_____ o__** education, but when we speak with kids, we often give the impression that school is a staging area for a successful life. **(significance)**

15. As I looked around the room, students were noisy but **th___ wa_ n__** evidence of inappropriate behaviour**. (not existing)**

16. I want these girls to be the best they can be, regardless of **th__ le___ o__** competition. My goal has always been to get these girls playing the right way**. (the extent of)**

Appendix E

ANKET

Sevgili Öğrenciler,

Bu çalışmanın amacı akademik yazma becerilerinizi geliştirmede sözcük öbekleriyle ilgili yapılan uygulamaya karşı tutumunuzu öğrenmektir. Lütfen her ifadeyi dikkatle okuyunuz ve anketin bütün bölümlerini samimiyetle cevaplayınız. Bu anketten elde edilen veriler bilimsel amaçlar için kullanılacaktır. Ayrıca notlarınızı herhangi bir şekilde etkilemeyecektir. Katkınız için teşekkür ederim.

Serpil UÇAR
Anadolu Üniversitesi
İngiliz Dili Eğitimi
Bölümü

Bölüm 1.

1. **Yaş:** …..
2. **Cinsiyet:** □Kız □Erkek

Bölüm 2.

Lütfen fikrinizi en iyi yansıtan kutucuğu işaretleyiniz ve her bir ifade için sadece bir cevap seçiniz.

	Kesinlikle Katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle Katılıyorum
1. Bu uygulamadan önce sözcük öbekleri ile ilgili çok deneyimim yoktu.					
2. Sözcük öbekleriyle ilgili bu deneyimden memnun kaldım.					
3. Gelecekteki yazılarımda sözcük öbekleri kullanmaya daha çok dikkat edeceğim.					
4. Sözcük öbekleri hakkında kesinlikle daha fazla bilgi edinmek istiyorum çünkü şu anki bilgim ve kullanma yeteneğim yeterli değil.					
5. Sözcük öbeklerinin uygun kullanımı konusunda yazma dersi öğretmenimden yeterli yardım, eğitim ve yararlı tavsiyeler almadım.					
6. Yazma dersi öğretmenleri sözcük öbekleri öğretimine özel bir önem vermelidir.					
7. Sözcük öbeklerini kullanma bana düşüncelerimi daha açık ifade etmemde yardımcı olur.					
8. Yazı dilinde sözcük öbekleri kullanmak anlamlıdır ve yazdığımı düzenleme becerimi geliştirir.					
9. Sözcük öbekleri kullanımı yazmaya ilgimi arttırır.					
10. Sözcük öbeği kullanmak eleştirel düşünme yeteneğimi geliştirir.					
11. Sözcük öbeğini uygun kullanmanın yazdıklarımın kalitesini geliştirdiğine inanıyorum.					
12. Sözcük öbeklerini bilmek ve kullanmak yazmada bazı ihtiyaçlarımı karşılayacaktır.					
13. Sözcük öbeklerini bilerek, gelecekte yazmada karşılaşacağım sorunlarla baş edebilmek için daha hazırlıklı olacağım.					
14. Sözcük öbeklerini kullanarak akademik yazmada daha başarılı olacağım.					
15. Genel olarak, sözcük öbeklerinin yazma becerimi geliştirmede yararlı ve önemli olduğunu düşünüyorum.					

Bölüm 3.

Bu açık uçlu sorular akademik yazma becerilerinizi geliştirmede sözcük öbekleriyle ilgili yapılan uygulamaya karşı sizlerin fikirlerini ve yorumlarını almak için araştırmacı tarafından hazırlanmıştır. Lütfen bütün sorulara içtenlikle cevap veriniz.

1. Sözcük öbekleri hakkında yapılan uygulamaya dair düşünceleriniz nelerdir? Lütfen açıklayınız.

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2. Uygulama sırasında kullanılan aktiviteler hakkında ne düşünüyorsunuz? Lütfen açıklayınız.

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3. Bu uygulamanın olumsuz yönleri var mıdır? Varsa nelerdir?

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Appendix F

Reading Text 1

The Changing Face of Communication

Michael Wesch is a cultural anthropology1 professor who explores the effects of new media on society and culture. He believes that all human relationships depend on communication. Change the type of communication, and you change the relationships. Change the relationships, and you change the structure2 of society. One example of this, he says, is television. When television became the dominant medium3 in the 1950s, it changed the way families interacted. Family members began to sit in front of the TV to watch rather than face each other to talk. The people on the television spoke, and the TV viewers listened. In this one-way type of communication, only the people on TV had power. Only they had a voice.

Communication Today: The Internet

Today, the Internet is changing our relationships again. The newest media of communication are on the Internet, and these media change and grow every day. Wesch and his students study social networks and other interactive Internet sites. For example, they studied YouTube, the popular online video sharing site. As Wesch explains, "Instead of simply watching TV, we can create and edit our own videos." Viewers all over the world can watch and write comments. This kind of sharing Wesch created and posted his own short video on YouTube. It has had more than 11 million views. The video asks us to think about how we use and interact with the Internet. The Internet is no longer just connecting people with information. It's connecting people with
people. It's a way for us to share our thoughts and ideas with the world. It wouldn't exist without us. In fact, Wesch says, "the Web is us."

Education and the New Media

Wesch wants to make changes in education to fit this new style of communication. He has made some changes in his own classes. For example, in his Introduction to Cultural Anthropology class, he didn't simply teach his students about different cultures. Instead, he asked each student to become an expert in one culture. Then the class used their knowledge to create an online role-playing game. As they learned about the different cultures, they increased their knowledge about global problems. According to Wesch, activities such as the role-play exercise help prepare students to be active and responsible members of society. "I ask [students] to think not about what new media was designed for," he says, "but how they can [use] it for something else." A great example, he believes, is social media. It was created to help friends connect, but now it also allows people to share and collaborate5 on projects. Wesch understands that the new media can provide opportunities for sharing and participation. However, he warns that online content can also be misleading. He believes it is important for everyone, especially students, to understand the dangers of digital media and learn how to use it wisely. In a traditional classroom, for example, the teacher is the main provider of information. Now, information is available to anyone with an Internet connection—and anyone can provide new information at any time. So one
of the goals of education should be to prepare students to find, analyze, and think critically about online information, as well as create their own. Wesch says, "I want to believe that technology can help us see relationships and global connections in positive new ways. It's pretty amazing that I have this little box sitting on my desk through which I can talk to any one of a billion people. And yet do any of us really use it for all the potential that's there?"

Reading Text 2

WHERE HAVE ALL THE FISH GONE

ThroughouT hisTory, people have thought of the ocean as a diverse and limitless source of food. Yet today there are clear signs that the oceans have a limit. Most of the big fish in our oceans are now gone. One major factor is overfishing. People are taking so many fish from the sea that species cannot replace themselves. How did this problem start? And what is the future for fish?

Source of the Problem

For centuries, local fishermen caught only enough fish for themselves and their communities. However, in the mid- 20th century, people around the world became interested in making protein-rich foods, such as fish, cheaper and more available. In response to this, governments gave money and other help to the fishing industry. As a result, the fishing industry grew. Large commercial fishing1 companies began catching enormous quantities of fish for profit and selling them to worldwide markets. They started using new fishing technologies that made fishing easier. These technologies included sonar2 to locate fish, and dragging large nets along the ocean floor. Modern technology allows commercial fishermen to catch many more fish than local fishermen can.

Rise of the Little Fish

In 2003, a scientific report estimated that only 10 percent remained of the large ocean fish populations that existed before commercial fishing began. Specifically, commercial fishing has greatly reduced the number of large predatory fish,3 such as cod and tuna. Today, there are plenty of fish in the sea, but they're mostly just the little ones. Small fish, such as sardines and anchovies, have more than doubled in number—largely because there are not enough big fish to eat them. This trend is a problem because ecosystems need predators to be stable. Predators are necessary to weed out4 the sick and weak individuals. Without this weeding out, or survival of the fittest, ecosystems become less stable. As a result, fish are less able to survive difficulties such
as pollution, environmental change, or changes in the food supply.

A Future for Fish?

A study published in 2006 in the journal *Science* made a prediction: If we continue to overfish the oceans, most of the fish that we catch now—from tuna to sardines—will largely disappear by 2050. However, the researchers say we can prevent this situation if we restore the ocean's biodiversity.5 Scientists say there are a few ways we can do this. First, commercial fishing companies need to catch fewer fish. This will increase the number of large predatory fish. Another way to improve the biodiversity of the oceans is to develop aquaculture—fish farming. Growing fish on farms means we can rely less on wild-caught fish. This gives species the opportunity to restore themselves. In addition, we can make good choices about what we eat. For example, we can stop eating the fish that are the most in danger. If we are careful today, we can still look forward to a future with fish.

Reading Text 3

THE ART OF MEMORY

We all try to remember certain things in our daily lives: telephone numbers, email addresses, facts that we learn in class, important tasks. But did you know that people once had great respect1 for memory? People began to value memory as a skill about 2,500 years ago. That's when the poet Simonides of Ceos discovered a powerful technique known as the loci2 method. Simonides realized that it's easier to remember places and locations than it is to remember lists of names, for example. According to the loci method, if you think of a very familiar place, and visualize certain things in that place, you can keep those things in your memory for a long time. Simonides called this imagined place a "memory palace." Your memory palace can be any place that you know well, such as your home or your school. To use the loci method to remember a list of tasks, for example, visualize yourself walking through your house. Imagine yourself doing each task in a different room. Later, when you want to remember your list of tasks, visualize yourself walking through your house again. You will remember your list of tasks as you see yourself performing each one. Nearly 2,000 years later, a man in 15th-century Italy named Peter of Ravenna used the loci method to memorize books and poems. He memorized religious texts, all of the laws of the time, 200 speeches, and 1,000 poems. By using the loci method, he was able to reread books stored in the "memory palaces" of his mind. "When I [travel] I can truly say I carry everything I own with me," he wrote. When Simonides and Peter of Ravenna were alive, books and pens were not widely available for people to write notes with, so people had to remember what they learned. Mary Carruthers is the author of *The Book of Memory*, a study of the role of memory techniques in the past. She writes, "Ancient and medieval people reserved their awe for memory." In other words, these people thought that a genius was a person with excellent memory. They considered memory to be an art and a great virtue4 because a person with a good memory could turn external knowledge into internal knowledge. After Simonides' discovery of the loci method, others continued to develop the art of memory. Memorization gained a complex set of rules and instructions. Students of memory learned what to remember and techniques for how to remember it. In fact, there are long traditions of memory training in many parts of the world. In some cultures, memorization of religious texts is considered a great achievement; many other societies value storytellers who can retell myths and folktales from the past. But over the past millennium, many things have changed. We've gradually replaced our internal memory with external memory. We've invented technological crutches6 so we don't have to store information in our brains. We have photographs to record our experiences, calendars to keep track of our schedules, books (and now the Internet) to store our collective knowledge, and note pads—or iPads—for our ideas. By using these crutches, we don't have to remember anything anymore. When we want to know something, we look it up. We've gone from remembering everything to remembering very little. How does this affect us and our society? Did we lose an important skill?

Reading Text 4

Train Your Brain!

Is there anything you can do to have a better memory? Research shows that mental and physical exercise and lifestyle choices can affect memory. In fact, many experts agree it is possible to improve your memory. Here are some tips:

Avoid stress

Recent research shows that stress is bad for the brain. In fact, one study connects worrying with memory loss. Therefore, if you can avoid stress in your life, you may also improve your memory.

Relaxation techniques like yoga are one way to reduce stress.

Play games

Can brainteasers**1** like sudoku puzzles improve memory? Some scientists say that mental activity might help memory. Puzzles, math problems, even reading and writing, can probably all benefit the brain.

Get some rest

"Poor sleep before or after learning makes it hard to encode**2** new memories," says Harvard University scientist Robert Stickgold. One study shows that by getting a good night's sleep, people remember a motor skill (such as piano playing) 30 percent better.

Eat right

Your brain can benefit from a healthy diet, just like the rest of your body. Foods that have antioxidants, such as blueberries, are good for brain cells. This helps memory.

SLEEP AND MEMORY

Many people think that sleep must be important for learning and memory, but until recently there was no proof. Scientists also believe the hippocampus plays a role in making long-term memories, but they weren't sure how. Now they understand how the process happens—and why sleep is so important.

Memories in Motion

A research team at Rutgers University recently discovered a type of brain activity that happens during sleep. The activity transfers new information from the hippocampus to the neocortex. The neocortex stores long-term memories. The researchers call the transferring activity "sharp wave ripples," because the transferring activity looks like powerful, short waves. The brain creates these waves in the hippocampus during the deepest levels of sleep. The Rutgers scientists discovered the wave activity in a 2009 study using rats. They trained the rats to learn a route in a maze. Then they let the rats sleep after the training session. They gave one group of sleeping rats a drug. The drug stopped the rats' wave activity. As a result, this group of rats had trouble remembering the route. The reason? The new information didn't have a chance to leave the hippocampus and go to the neocortex.

Lifelong Memories

The experiment explains how we create long-term memories. The wave activity transfers short-term memories from the hippocampus to the neocortex. Then the neocortex turns the sharp wave ripples into long-term memories. Researcher György Buzsaki says this is "why certain events may only take place once in the waking state and yet can be remembered for a lifetime." The Rutgers study is important because it proves the importance of sleep for learning and memory.

It also finally explains how the brain makes long-term memories.

Appendix G Lesson Plans

Session 1 (Week 1)

Each session includes two main parts; reading comprehension and teaching of target bundles:

Session 1:

Pre-reading

In the first part *(Think & Discuss)* as a pre-reading activity, asking the following **thought-provoking question**, the instructor will make students think, discuss and make a list of ideas about it cooperatively. (*-How do you use the Internet to keep in touch with other people*?). In the next part, *(Preparing to Read***)**, keywords chosen by the instructor herself will be introduced to students in authentic examples on the blackboard. Along with the **Think-Pair-Share activity,** students in pairs will try to understand these keywords in authentic examples by the help of their instructor and they share their responses with their peers.

Later, the instructor will write the unit theme called "Connected Lives" on the backboard and she will want students make some **brainstorming** and predictions about the content of the target text. Then, **skimming** the first two lines in each paragraph (2-3 minutes), and using pictures, graphs, maps and captions of the text, students will analyze and evaluate them colaboratively in detail and thus they will discuss and decide what the reading passage would be about. Then, students will be asked to create some questions that might be answered in the text. This activity, increases students' curiosity before reading and motivates students to read more carefully, searching for their answers to their questions. (SQ3R method)

While-reading

With the method of **SQ3R** (Survey, Question, Read, Recite, Review), the instructor, -creating **a purpose for reading** the text- will make students to look for the reponses to the questions they have written down prior to reading while they are reading the passage. Then, they will make note-taking from the text and underline the important

key details for further understanding. Finally, they review the text for looking for the missing key details. Students will also use a **questioning technique** by asking further questions to themselves and use these questions to clarify their reading. As an another activity, using **double-entry journal technique**, students will make two columns on their paper; they will write the main topic and supporting details that connect to the topic sentence in one column; details that are not directly related in another. Therefore, students can identify relevant and irrelevant knowledge in the text. The instructor will give students some sentences from the text and ask them what they can infer from each statement. Therefore, students can make inferences (**Inferring strategy**) from the text connecting their prior knowledge and textual information to create conclusions, make critical judgements from the text.

Post-reading

The instructor will check the students' understanding about the main idea of the passage asking them some key details about the reading passage. She will allow time for students to write their answers individually and compare them in pairs. **Summarizing technique** will be used for students in order to shorten a text to just main points and details.

After getting students comprehend the text thoroughly, the instructor will explain the project to the students and will take some time to describe and illustrate the definiton of lexical bundles, the types and the features of lexical bundles. In addition, the researcher will give some examples of lexical bundles usage in authentic corpus excerpts (taken from Corpus of Contemporary American English)

Later, the instructor will give the same text to students once more by underlining the selected expressions (lexical bundles) in bold and ask them collaboratively look these expressions and guess their meanings from the context (*1. Noticing activity in the worksheet).* In this way, the instructor aims at simply raising students' awareness about the target lexical bundles through their textbooks.

Furthermore, the instructor will give some concordancing lines from COCA for each lexical bundles to students in order to analyze them more elaboratively for their meanings and functions (Neely & Cortes, 2009; Salazar, 2014) *(2. Noticing Activity in the worksheet).* In this activity, firstly, students will be asked some comprehension

questions about the concordance lines that they have difficulty in understanding. In this way, students will correctly comprehend the meaning of the target bundle. Later, the instructor will draw their attention to the functions of the target bundle using these concordancing lines.*(Step 2, step 3)*

The session will be continued with the retrieval and generative exercises. In the retrieval activities *(1. Retrieval activity; Fill in the gap activity in the worksheet),* the instructor will want students fill in the gaps with the appropppriate lexical bundles they have analyzed before for further practice with form and function (Neely & Cortes, 2009). As a second activity *(2. Retrieval activity; Rephrasing activity in the worksheet),* students will be asked to rephrase the isolated sentences from COCA containing lexical bundles using the clue in brackets (Peters & Pauwels, 2015)

In generative activities, as a substitution task *(1. Generative activity; Replacing underlined expression activity in the worksheet*), students will be asked to replace the underlined expressions in the sentences with a similar expression from the box (Salazar, 2014). Then, In the activity of using the key lexical bundles in a meaningful sentence *(2. Generative activity in the worksheet),* students will be asked to write their own sentences using the target lexical bundles (Peters & Pauwels, 2001). As a third activity *(3. Generative activity; Rewriting the paragraph in the worksheet*), the instructor have prepared some paragraphs taken from COCA without adding lexical bundles. Students will be asked to rewrite the paragraphs adding the lexical bundles where they think it would fit best to convey the function (Cortes, 2006). If they have difficulty in understanding some sentences, they will get help from their instructor or dictionary.

As a last activity *(4. Generative activity in the worksheet),* students will be asked to write an outline about the topic: -Does online social networking help us or harm us? including topic sentence, supporting ideas and a concluding sentence. Then students will be asked to write an argumentative paragraph about this topic using the target bundles (Nation, 2001). Finally, the first session will be completed with the answers students provided in an informal way and possible answers will be discussed by the whole class and the instructor.

Session 2 (Week 2)

Each session includes two main parts; reading comprehension and teaching of target bundles:

Pre-reading

In the first part (Think & Discuss) as a pre-reading activity, By asking the following thought-provoking question, the instructor will make students think, discuss and make a list of ideas about it collaboratively. ("Do you eat seafood? If yes, what types do you eat? If no, why not?")

In the next part (Preparing to Read), the following keywords chosen by the instructor

herself will be introduced to students in authentic examples on the blackboard. Along with the Think-Pair-Share activity, students in pairs will try to understand these keywords in authentic examples by the help of their instructor and they share their responses with their peers: (*Keywords*: diverse (adj); reduce (v); population (n.); stable (adj))

- If you **reduce** something, you make it less.
- If something is **diverse**, it has things that are different from each other.
- The population is the number of the people or animals that live in a particular place.
- Something that is **stable** is not likely to change.

Later the instructor will write the theme called "*Deep Trouble*" on the blackboard and she will want students make some brainstorming and predictions about the content of the target text. Then skimming the first two lines of each paragraph (for 2 min), and using pictures and captions of the text, students will analyze and evaluate them cooperatively in detail and thus they will discuss and decide what the reading passage will be about. Then, Students will be asked to create some questions that might be answered in the text. (SQ3Rmethod: survey, question, read, recite, review)

While-reading

With the method of SQ3R, the instructor, -creating a purpose for reading the text- will make students to look for the reponses to the questions they have written down prior to reading while they are reading the passage. Finally, they review the text for looking for the missing key details. Students will also use a questioning technique by asking further questions to themselves and use these questions to clarify their reading. As an another activity, using double-entry journal technique, students will make two columns on their

paper; they will write the main topic and supporting details that connect to the topic sentence in one column; details that are not directly related in another. The instructor will give students some following sentences from the text and ask them what they can infer from each statement. Therefore, students can make inferences (Inferring strategy) from the text.

Instructor: Work with a partner. What can you infer from each statement from the reading passage. Explain it using your own words.

- This trend is a problem because ecosystems need predators to be stable.
- Specifically, commercial fishing has greatly reduced the number of large predatory fish such as cod and tuna.
- Another way to improve the biodiversity of the oceans is to develop aquaculture-fish farming.

Post-reading

The instructor will check the students' understanding about the main idea of the passage asking them some following questions about the reading passage. She will allow time for students to write their answers individually and compare them in pairs:

- What is the main reason that most of big fish in the oceans are gone?
- Why can the commercial fishing industry catch more fish than local fishermen can?
- Why are large populations of little fish a problem?
- What might eventually happen if fishing continues at current rate?

Later, the instructor will give the same text to students once more by underlining the selected expressions (*most of the, in response to, as a result, the number of*) in bold and ask them collaboratively look at these bundles and guess their meanings and functions from the context by the help of their instructor. (*1. Noticing activity in the worksheet).* This step will draw students' attention to sequences and thus promote noticing. Furthermore, the instructor will give some concordancing lines from COCA for each lexical bundles to students in order to analyze them more elaboratively for their meanings and functions. *(2. Noticing Activity in the worksheet).* In this activity, firstly, students will be asked some comprehension questions about the concordance lines that they have difficulty in understanding (*question examples were shown in the concordancing lines*).

In this way, students will correctly comprehend the meaning of the target bundle. Later, the instructor will draw their attention to the form and the function of the target bundle using these questions*:*

1. Notice the words immediately preceding and following 'most of the'. Is there a pattern?
2. What do you think the speaker's purpose was in using 'most of the'?

The session will continue with the retrieval and generative exercises. In the retrieval activities *(1. Retrieval activity; Fill in the gap activity in the worksheet),* the instructor will want students fill in the gaps with the approppriate lexical bundles they have analyzed before for further practice with form and function. As a second activity *(2. Retrieval activity; Rephrasing activity in the worksheet),* students will be asked to rephrase the isolated sentences from COCA containing lexical bundles using the clue in brackets. In generative activities, as a substitution task *(1. Generative activity; Replacing underlined expression activity in the worksheet*), students will be asked to replace the underlined expressions in the sentences with a similar expression from the box. Then, In the activity of using the key lexical bundles in a meaningful sentence *(2. Generative activity in the worksheet),* students will be asked to write their own sentences using the target lexical bundles. As a third activity *(3. Generative activity; Rewriting the paragraph in the worksheet*), the instructor have prepared some paragraphs taken from COCA without adding lexical bundles. Students will be asked to rewrite the paragraphs adding the lexical bundles where they think it would fit best to convey the function. If they have difficulty in understanding some sentences, they will get help from their instructor or dictionary.

As a last activity *(4. Generative activity in the worksheet),* students will be asked to write an argumentative paragraph about the topic called "*How should we treat animals?"* using the target bundles (most of the, the number of, in response to, as aresult). Finally, the first session will be completed with the answers students provided in an informal way and possible answers will be discussed by the whole class and the instructor.

Session 3 (Week 3)

Each session includes two main parts; reading comprehension and teaching of target bundles:

Pre-reading

In the first part (Think & Discuss) as a pre-reading activity, By asking the following thought-provoking question, the instructor will make students think, discuss and make a list of ideas about it collaboratively. (-"*Do you remember what you did on your last birthday? How about your birthday five years ago? Ten years ago?"*). In the next part, the instructor will select the following keywords and they will be introduced to students in authentic examples on the blackboard. Students in pairs will try to understand these keywords in authentic examples by the help of their instructor and they share their responses with their peers: (*Keywords*: visualize (v.); memorize (v.); achievement (n.); collective knowledge (n.))

- **To visualize** means to form a picture in your mind of someone or something.
- **Collective knowledge** signifies knowledge that all members of group share.
- **To memorize** is to learn words, music etc by heart so that you remember everything.
- **Achievement** is something important that you succeed in doing by your own efforts.

Then, using their prior knowledge, students will be asked to respond a mini quiz about

the reading passage "The Art of Memory". The following True-False questions are:

1. Visualizing things arranged in an imagined space is called the memory palace.□
2. Taking a picture to remember somebody is an example of internal memory.□
3. People began to value memory as a skill about 1000 years ago.□
4. Years ago, Simonides of Ceos discovered a powerful technique known as loci method.□
5. A person with a good memory could turn internal knowledge into external knowledge.□

While-Reading

The instructor -creating a purpose for reading the text- will make students read the passage in order to check their responses that they give in the mini quiz (T-F questions) prior to reading while they are reading the passage. After checking their answers, the instructor will ask them the following further questions to clarify their reading:

1. Have attitudes toward memory changed over the century? In the past, What did people think about memory? Nowadays, what do they think about it?
2. What are the examples of internal memory and external memory?

Post-reading

The instructor will check the students' understanding about the main idea of the passage asking them some following questions about the reading passage. She will allow time for students to write their responses individually and compare them in pairs:

- What is the main idea of the reading passage?
- Why did ancient and medieval people think memory was an art?
- How does the loci method work? Explain the method in your own words.

Later, the instructor will give the same text to students once more by underlining the selected expressions **(*according to the, be able to, in other words, part of the*)** in bold and ask them collaboratively look at these bundles and guess their meanings and functions from the context by the help of their instructor. (*1. Noticing activity in the worksheet)*. Furthermore, the instructor will give some concordancing lines from COCA for each lexical bundles to students in order to analyze them more elaboratively for their meanings and functions. *(2. Noticing Activity in the worksheet).* In this activity, firstly, students will be asked some comprehension questions about the concordance lines that they have difficulty in understanding (*question examples were shown in the concordancing lines*). In this way, students will correctly comprehend the meaning of the target bundle. Later, the instructor will draw their attention to the form and the function of the target bundle using these questions*:*

3. Notice the words immediately preceding and following 'according to the'. Is there a pattern?
4. What do you think the speaker's purpose was in using 'according to the'?

The session will continue with the retrieval and generative exercises. In the retrieval activities *(1. Retrieval activity; Fill in the gap activity in the worksheet)*, the instructor will want students fill in the gaps with the appropppriate lexical bundles they have analyzed before for further practice with form and function. As a second activity *(2. Retrieval activity; Rephrasing activity in the worksheet)*, students will be asked to rephrase the isolated sentences from COCA containing lexical bundles using the clue in brackets. In generative activities, as a substitution task *(1. Generative activity; Replacing underlined expression activity in the worksheet*), students will be asked to replace the underlined expressions in the sentences with a similar expression from the box. Then, In the activity of using the key lexical bundles in a meaningful sentence *(2. Generative activity in the worksheet)*, students will be asked to write their own sentences using the target lexical bundles. As a third activity *(3. Generative activity; Rewriting the paragraph in the worksheet*), the instructor have prepared some paragraphs taken from COCA without adding lexical bundles. Students will be asked to rewrite the paragraphs adding the lexical bundles where they think it would fit best to convey the function. If they have difficulty in understanding some sentences, they will get help from their instructor or dictionary.

As a last activity *(4. Generative activity in the worksheet)*, students will be asked to write an argumentative paragraph about the topic called: **"You are learning a foreign language. You are having trouble remembering new words. How might you solve this problem?"** They will be asked to use the target bundles. Finally, the first session will be completed with the answers students provided in an informal way and possible answers will be discussed by the whole class and the instructor.

Session 4 (Week 4)

Each session includes two main parts; reading comprehension and teaching of target bundles:

Pre-reading

In the first part (Think & Discuss) as a pre-reading activity, By asking the following *thought-provoking question*, the instructor will make students think, discuss and make a list of ideas about it collaboratively. (-*Is there anything you can do to have better memory?*). In the next part, the instructor will select the following *keywords* and they will be introduced to students in authentic examples on the blackboard. Students in pairs will try to understand these keywords in authentic examples by the help of their instructor and they share their responses with their peers: (*Keywords*: affect (v.); proof (n.); drug (n.); state (n.))

- Exercise can **affect** the body in a good way: It can make you healthier.
- Scientists often give a rat a **drug** to make it go to sleep or wake up.
- Because of a recent study, we now have **proof** that technology is an inevitable part of our life.
- If someone is in a **state** of confusion, they are not sure what is happening.

Then, using their prior knowledge, students will be asked to respond *a mini quiz* (T-F) about the topic "Sleep and Memory" . The following questions are:

1. Some scientists say that mental activity might help memory.□
2. Foods that have antioxidants such as blueberries are good for brain cells.□
3. Neocortex does not play a role in making long-term memories.□
4. Hippocampus turns the sharp wave ripples into long-term memories.□
5. Scientists believe that long-term memories are formed during sleep.□

While-Reading

The instructor -creating a purpose for reading the text- will make students read the passage in order to check their responses that they give in the mini quiz prior to reading while they are reading the passage. After checking their answers, the instructor will ask them the following further questions to clarify their reading:

1. *According to the text, what can be done to improve your memory?*

2. *What is the connection between sleep and memory?*

Post-reading

The instructor will check the students' understanding about the main idea of the passage asking them some following questions about the reading passage. She will allow time for students to write their responses individually and compare them in pairs:

1. *How did the Rutgers scientists discover the wave activity in 2009?*
2. *What does "sharp wave ripples" mean?*
3. *What might affect memory?*

Later, the instructor will give the same text to students once more by underlining the selected expressions ***(the rest of, the importance of, the level of, there was no)*** in bold and ask them look at these bundles collaboratively and guess their meanings and functions from the context by the help of their instructor. (*1. Noticing activity in the worksheet).* Furthermore, the instructor will give some concordancing lines from COCA for each lexical bundles to students in order to analyze them more elaborately for their meanings and functions. *(2. Noticing Activity in the worksheet).* In this activity, firstly, students will be asked some comprehension questions about the concordance lines that they have difficulty in understanding (*question examples were shown in the concordancing lines*). In this way, students will correctly comprehend the meaning of the target bundle. Later, the instructor will draw their attention to the form and the function of the target bundle using these questions*:*

5. *Notice the words immediately preceding and following 'the rest of'. Is there a pattern?*
6. *What do you think the speaker's purpose was in using 'the rest of'?*

The session will continue with the retrieval and generative exercises. In the retrieval activities *(1. Retrieval activity; Fill in the gap activity in the worksheet),* the instructor will want students fill in the gaps with the appropppriate lexical bundles they have analyzed before for further practice with form and function. As a second activity *(2. Retrieval activity; Rephrasing activity in the worksheet),* students will be asked to rephrase the isolated sentences from COCA containing lexical bundles using the clue in brackets. In generative activities, as a substitution task *(1. Generative activity; Replacing underlined expression activity in the worksheet*), students will be asked to replace the

underlined expressions in the sentences with a similar expression from the box. Then, In the activity of using the key lexical bundles in a meaningful sentence *(2. Generative activity in the worksheet),* students will be asked to write their own sentences using the target lexical bundles. As a third activity *(3. Generative activity; Rewriting the paragraph in the worksheet*), the instructor have prepared some paragraphs taken from COCA without adding lexical bundles. Students will be asked to rewrite the paragraphs adding the lexical bundles where they think it would fit best to convey the function. If they have difficulty in understanding some sentences, they will get help from their instructor or dictionary.

As a last activity *(4. Generative activity in the worksheet),* students will be asked to write an opinion paragraph about the topic called: **"What can we do to improve our memory?".** They will be asked to use the target bundles. Finally, the first session will be completed with the answers students provided in an informal way and possible answers will be discussed by the whole class and the instructor.

Appendix H Worksheets

WORKSHEET 1

(the effect of, one of the, it is important, as well as)

NOTICING ACTIVITIES

Activity 1: Analyzing and classifying the lexical bundles collaboratively

(Nation, 2001)

Step 1: Read the following extracts taken from the academic texts you have studied at your textbooks. Look at the underlined expressions and work in pairs to guess their meanings and functions from the contexts.

The Changing Face of Communication

Michael Wesch is a cultural anthropology professor who explores **the effects of** new media on society and culture. He believes that all human relationships depend on communication. Change the type of communication, and you change the relationships. Change the relationships, and you change the structure of society. One example of this, he says, is television. When television became the dominant medium in the 1950s, it changed the way families interacted. Family members began to sit in front of the TV to watch rather than face each other to talk. The people on the television spoke, and the TV viewers listened. In this one-way type of communication, only the people on TV had power. Only they had a voice.

Education and the New Media

Wesch wants to make changes in education to fit this new style of communication. He has made some changes in his own classes. For example, in his Introduction to Cultural Anthropology class, he didn't simply teach his students about different cultures. Instead, he asked each student to become an expert in one culture. Then the class used their knowledge to create an online role-playing game. As they learned about the different cultures, they increased their knowledge about global problems. According to Wesch, activities such as the role-play exercise help prepare students to be active and responsible members of society. "I ask [students] to think not about what new media was designed for," he says, "but how they can [use] it for something else." A great example, he believes, is social media. It was created to help friends connect, but now it also allows people to share and collaborate5 on projects. Wesch understands that the new media can provide opportunities for sharing and participation. However, he warns that online content can also be misleading. He believes **it is important** for everyone, especially students, to understand the dangers of digital media and learn how to use it wisely. In a traditional classroom, for example, the teacher is the main provider of information. Now, information is available to anyone with an Internet connection—and anyone can provide new information at any time. So **one of the** goals of education should be to prepare students to find, analyze, and think critically about online information, **as well as** create their own. Wesch says, "I want to believe that technology can help us see relationships and global connections in positive new ways. It's pretty amazing that I have this little box sitting on my desk through which I can talk to any one of a billion people. And yet do any of us really use it for all the potential that's there?"

Activity 2: Concordancing task for the key lexical bundles
(Neely & Cortes, 2009; Salazar, 2014)

Step 1: Try to understand each concordance line taken from authentic academic texts in COCA containing "*the effect of*" for meaning and functions.

• **…**the studies considered in this review and that more research is needed to determine **the effect of** short-form composing practices on literacy abilities. In sum, these studies indicate that**…**
• …vaccine effectiveness, and sex) were changed one at a time to determine **the effect of** higher and lower plausible values on excess risk for GBS with vaccination. We…
• …level (Klingner & Vaughn, 2000) and no previous studies had examined **the effect of** CSR on metacognitive awareness (Jacobs & Paris, 1987), this study…
• …to low correlations with more global standardized tests of reading comprehension. Thus, **the effect of** the interventions on higher-level comprehension skills (e.g., making inferences) remains unknown…
• …the purpose of the present study was to perform a meta-analysis to determine **the effect of** prophylactic antibiotics on surgical site infections in BRS patients…
• … The surveys go right to the source--the students--to determine **the effect of** a strategy. I really think down the line you will see a change…
• …Kao, they go through everything they've done and review again. Imagine **the effect of** that on student test scores when every teacher is systematically reviewing a curriculum that…
• …and practice with oral reading and spelling. This study sought to examine **the effect of** this specific multisensory approach to language arts on the reading skills of sound-symbol knowledge…
• … To determine **the effect of** conservative management of unoperated, nonscissoring spiral metacarpal fractures. # METHODS: Sixty-one consecutive…
• …a prospective consecutive case series of unoperated, nonscissoring spiral metacarpal fractures to document **the effect of** conservative management on resultant power in the hand despite the metacarpal shortening that is…

Step 2: Notice the words immediately preceding and following 'the effect of'. Is there a pattern?
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……
……

Step 3: What do you think the speaker's purpose was in using 'the effect of'?
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Step 1: Try to understand each concordance lines taken from authentic academic texts in COCA containing "<u>one of the</u>" for meaning and functions.

• …The Internet also provided a means to connect Karen communities across transnational borders. **<u>One</u> <u>of</u> <u>the</u>** boys' cousins who resettled in Norway was a frequent presence at parties…
• …performed with regard to the benefit of postoperative antibiotics. BRS is **<u>one</u> <u>of</u> <u>the</u>** most common procedures in plastic surgery in which the routine use of perioperative…
• …After showing a short scene, students might be asked to imagine they are **<u>one</u> <u>of</u> <u>the</u>** characters. By encouraging students to " step inside " the character and…
• …create music to accompany their story line, or write poetry from the perspective of **<u>one</u> <u>of</u> <u>the</u>** characters encourages students to think outside of their own experiences, investigate a…
• …Rainbow Nation for its diversity, South Africa has 11 official languages and is **<u>one</u> <u>of</u> <u>the</u>** most economically developed countries on the continent. Two prominent cultures include Xhosa…
• …intent of gaining deeper understanding of the diversity of African musics further serves to support **<u>one</u> <u>of</u> <u>the</u>** objectives of multicultural music education and provides opportunities for authentic African musical experiences…
• …teachers are only prepared to teach non-English subjects and lack preparation in reading instruction, **<u>one</u> <u>of</u> <u>the</u>** most difficult challenges is helping students overcome their reading inability, a barrier…
• …the network. The same concept is sometimes referred to as the Open Internet. **<u>One</u> <u>of</u> <u>the</u>** most significant components of the Open Internet concept is making the Internet available…
• …and experiences working with preservice and inservice teachers, we have found that questioning is **<u>one</u> <u>of</u> <u>the</u>** strategies underlying instruction that challenges most teachers. Faced with the difficult task…
• …underlying teaching (Mills, Rice, Berliner, & Rosseau, 1980) and **<u>one</u> <u>of</u> <u>the</u>** most effective strategies for teaching content that influences children's learning. According…
• …the United States. Three of the four aforementioned justifications formed the foundation for **<u>one</u> <u>of</u> <u>the</u>** earliest U.S. public education initiatives. In 1892, the Committee of Ten…

Step 2: Notice the words immediately preceding and following 'one of the'. Is there a pattern?
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……
…….
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……
Step 3: What do you think the speaker's purpose was in using 'one of the'?
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…….

Step 1: Try to understand each concordance lines taken from authentic academic texts in COCA containing "*it is important*" for meaning and functions.

• …relation to their tutees, because their tutees also received similar instruction. **It is important** to point out that this study will attempt to compare differences in achievement between the…
• …simply reading definitions is not a good way to teach vocabulary. **It is important** to discuss with students how a word fits within the context of a passage,…
• …This article discusses why **it is important** for teachers to use digital resources and how digital storytelling projects can be used to…
• …learning and brain development. I value traditional learning experiences (I think **it is important** for students to be able to demonstrate what they can do in certain disciplines)…
• …Similar data have been reported elsewhere. **It is important** to acknowledge that reconstruction may impact the time to chemotherapy, but not necessarily in…
• **…It is important** that teachers integrate technology into their classroom curriculum for the educational benefits technology may bring…
• …Consequently, leaked clues failed to prevent violence. But **it is important** to remember that school shooters and shootings are quite rare, and perpetrators represent an…
• …Because early experiences in these areas are related to future reading outcomes, **it is important** to survey whether preschool teachers are directly instructing through established curricula, or leaving skill…
• …the national average with an accuracy rate of 63%. In addition, **it is important** to remember that the Treatment group, as a whole, had a two-point lower…
• …tended to be the operative approach of choice. **It is important** for surgeons to realize that the surgical approach itself can cause damage to the…
• …sound of the instruments that were played. With a new activity, **it is important** that everyone have opportunities to offer an opinion and to point out that there can…

Step 2: Notice the words immediately preceding and following 'it is important'. Is there a pattern?

…
……
……
…….

Step 3: What do you think the speaker's purpose was in using 'it is important' ?

…
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…….

Step 1: Try to understand each concordance lines taken from authentic academic texts in COCA containing "*as well as*" for meaning and functions.

• …a tightly woven 750-word story. This helps students write clearly and concisely, **as well as** develop other skills that they might be able to bring to other narrative writing…
• …examined flash through mentor texts, noticing specific features common to this genre, **as well as** crafting and practicing the components in their writing. Students self-selected topics, took…
• …where they will be able to practice and recognize the technique in their writing **as well as** peers' writing. In addition to titles, students recognized other specific…
• whereas the college-prep class played more with their writing, inventing techniques, **as well as** incorporating many mentor texts into their writing…
• …new contribution to the field. In terms of students with reading disability, **as well as** English language learners, fluency and comprehension were highly related to silent contextual reading…
• …At the work place, individuals must be good listeners to receive salient messages **as well as** communicate effectively. Thus, too frequently, errors are made in oral transactions…
• …the importance of the interest factor in learning. The kind of activity chosen **as well as** the method of instruction will hinder or assist in developing good listening habits…
• …and to improve therein. Whole class discussions assist pupils in practicing listening skills **as well as** to interact with classmates. There are general rules which need to be followed…
• …he called into question the identity of Mary's Creek town of origin, **as well as** the legend that she was the daughter of the South Carolina explorer Henry Woodward…
• …may well have been previously identified and so appear in the medical records. **As well as** additional communication requirements, this may also mean that one or more carers…
• …through the libraries and giving them opportunities to ask questions during the course, **as well as** to ask for repetition and to take pictures, are ways to introduce and…
• …students being able to share with other like-minded people their aspirations for the future **as well as** study alongside them to develop their confidence, skills and knowledge to achieve their…

Step 2: Notice the words immediately preceding and following 'as well as'. Is there a pattern?
……
……
……
……

Step 3: What do you think the speaker's purpose was in using 'as well as'?
………
……
……
…….

RETRIEVAL ACTIVITIES

Activity 1: Fill in the blanks examples taken from COCA
(Neely & Cortes, 2009)

Step 1: In each of the following sentences, a lexical bundle is missing. Using the context of the sentence, decide which bundle should go in the each blank. Choose among the lexical bundles*;*

'the effect of', 'one of the', 'it is important', 'as well as'

1. Some students learned how to use presentation programs to paste images and make sounds _____ to use data tables from select websites in order to convey a coherent and cogent message. Although putting together a presentation seemed benign, one student commented that, " While working on the Power Point, it was hard to put every aspect of the tour into a smooth, and understandable presentation. But I was excited to take on the challenge. " (as well as)

2. Teaching online is different from teaching face-to-face. However, in both instances, detailed planning is a must! During this phase _____ that you take the time to determine procedures, break down tasks, and develop a timeline for your course. Start with your basic lesson plans, including learning objectives, and expand on the following items. (it is important)

3. To examine _____ online research and comprehension instruction, we completed a study with fifth-grade students. The teachers in this study provided 13 direct instruction sessions for students targeting reading comprehension, synthesis, and evaluation of online reading materials. (the effect of)

4. Mary Musgrove (Mathewes/Bosomworth) is _____most recognizable figures of the colonial South, and her improbable story has been recounted many times during the past two hundred years. Consequently, many of the facts about her life are well established. Born around 1700 to a Creek Indian mother and an English father, Mary spent roughly the first seven years of her life in the Creek Nation. (one of the)

5. Physical health is an important component of optimal living. _____ even for students with physical disabilities to reach their full potential for physical health. Elements of physical wellness include building muscular strength and endurance, cardiovascular strength and endurance, and flexibility. Researchers have explored the effect of music to serve as a motivation to exercise, (it is important)

6. The six points originated from research-based information acquired during a literature review of how to effectively discover how students feel about themselves as readers. The six points will give students the opportunity to report perceptions and insights _____ feelings about their current and past reading experiences. The characters in the scenario were designed to match the participant's age, gender, and ethnicity. (as well as)

7. _____ most satisfying aspects of this activity was watching students help other students, regardless of group membership. This type of collaboration helped increase the quality of the finished product and ensured that learning was occurring. (one of the)

8. This study examined _____ instruction in an active listening strategy on the communication skills of pre-service speech-language pathologists. Twenty-three pre-service SLPs in their second year of graduate study received a brief strategy instruction in active listening skills. (the effect of)

9. _____ goals of the trip was, of course, to provide a foundation for students to develop their own practice of librarianship. Jill said that " the trip enhanced my understanding of how libraries are more than just a place to store books". (one of the)

10. At the work place, individuals must be good listeners to receive salient messages _____ communicate effectively. Thus, too frequently, errors are made in oral transactions. (as well as)

Activity 2: Rephrasing activity
(Peters & Pauwels, 2015)

Step 1: Rephrase the isolated sentences containing lexical bundles and using the clue in brackets.

1. Some students learned how to use presentation programs to paste images and make sounds. In addition, they learned to use data tables from select websites in order to convey a coherent message. **(as well as)**
   ……
   ……
   …….....
2. Cheng and Furnham (2002) studied three variables (peer relations, self-confidence, and school performance) have an impact on on happiness evaluating high school students. **(the effect of)**
   ……
   ……
   ……

3. The four advanced courses are offered online and, through cooperation from the universities where the sponsors teach, the students attend classes together. Each of the sponsors teaches a single course. **(one of the)**
   ……
   ……
   ……

4. It is clear that students need explicit spelling instruction. They also need the explicit reading instruction. **(as well as)**
   .....
   .....
   .....

5. Understanding meanings of words is also crucial for comprehension. **(it is important)**
   ……
   ……
   ……

GENERATIVE ACTIVITIES

Activity 1:Substitution Task
(Salazar, 2014)

Step 1: Replace the underlined expressions in the sentences below with a similar expression from the box.

The effect of	**as well as**	**it is important**	**one of the**

1. It was not too difficult for students to find books, because **in addition to** students and English teachers sharing and recommending books, the librarian conducted book talks in classrooms to provide students with a synopsis of appealing library books.

2. In a study of struggling adult readers, researchers examined **the impact of** rate or speed of processing on reading proficiency.

3. Because these students often experience feelings more intensely, **it is crucial** that they feel supported.

4. Students with disabilities are often faced with numerous challenges as they progress through their school years. **In addition to** disability-related challenges, they may encounter additional difficulties such as lack of social acceptance by their peers.

5. I know you'll expect I should say something **particular of the** slaves; and you will imagine me half a Turk when I don't speak of it with the same horror other Christians have done before me.

Activity 2: Use the key lexical bundles in a meaningful sentence activity
(Peters & Pauwels, 2015)

Step 1: Make complete sentences using these lexical bundles below:

"the effect of", "one of the", "it is important", "as well as"

1. _____
   _____*(the effect of)*
2. _____
   _____*(one of the)*

3. _____
_____*(it is important)*
4. _____
_____
_(as well as)

Activity 3: Rewriting the paragraph using the key lexical bundles
(Cortes, 2006)

Step 1: These paragraphs have been taken from COCA. Some lexical bundles appeared in these paragraphs but they have been deleted. Please, rewrite the paragraph and add the lexical bundles where you think it fits best to convey the corresponding function.

1. the effect of

- The relationships between sleep and performance have been studied in many different fields including human science, medicine, psychology, education, and business. Sleep-related variables (e.g. sleep deficiency, sleep quality, sleep habits) have been shown to influence performance of students and workers. Therefore, the purpose of this study was to determine **(the effect of)** sleep on academic and job performance. The history of sleep research can be traced back to the century. According to the National Sleep Foundation's Sleep in America Poll, U.S. adults sleep about seven hours every night…

2. one of the

- Students need to be prepared to function well in the digital world they live in, and if teachers refrain from implementing technology effectively, their students will likely face problems later in life. Preparing students to be adept with digital resources, however, is only **(one of the)** many reasons for them to use digital storytelling in school. As a result of constant exposure to technology, today's students are extremely tech savvy, and even very young children can manipulate technology.

3. it is important

- Unfortunately, some teachers do not use enough digital resources for students to derive the full benefits of technology. One easy way to avoid this problem is by assigning students projects requiring the creation of digital stories. This article discusses why **(it is important)** for teachers to use digital resources and how digital storytelling projects can be used to help students improve in reading and writing.

4. as well as

- Change Theory is based on the idea that teachers can change their instructional behaviors and perceptions of self over time, while Concerns Theory focuses on purposeful

communication with self **(as well as)** with others about teaching concerns. Ultimately, teachers' meaningful change can not occur without the purposeful communication…

Activity 4:

- **Does Social Networking help us or harm us?**

Write an argumentative paragraph about the advantages or disadvantages of Social Networking. Use the target lexical bundles (the effect of, as well as, one of the, it is important)

(Nation, 2001)

Good Luck☺

WORKSHEET 2

(most of the, in response to, as a result, the number of)

NOTICING ACTIVITIES

Activity 1: Analyzing and classifying the lexical bundles collaboratively

(Nation, 2001)

Step 1: Read the following extracts taken from the academic texts you have studied at your textbooks. Look at the underlined expressions and work in pairs to guess their meanings and functions from the contexts.

Where Have All the Fish Gone

Throughout hisTory, people have thought of the ocean as a diverse and limitless source of food. Yet today there are clear signs that the oceans have a limit. **Most of the** big fish in our oceans are now gone. One major factor is overfishing. People are taking so many fish from the sea that species cannot replace themselves. How did this problem start? And what is the future for fish?

Source of the Problem

For centuries, local fishermen caught only enough fish for themselves and their communities. However, in the mid-20th century, people around the world became interested in making protein-rich foods, such as fish, cheaper and more available. **In response** to this, governments gave money and other help to the fishing industry. **As a result**, the fishing industry grew. Large commercial fishing1 companies began catching enormous quantities of fish for profit and selling them to worldwide markets. They started using new fishing technologies that made fishing easier. These technologies included sonar2 to locate fish, and dragging large nets along the ocean floor. Modern technology allows commercial fishermen to catch many more fish than local fishermen can.

Rise of the Little Fish

In 2003, a scientific report estimated that only 10 percent remained of the large ocean fish populations that existed before commercial fishing began. Specifically, commercial fishing has greatly reduced the number of large predatory fish,3 such as cod and tuna. Today, there are plenty of fish in the sea, but they're mostly just the little ones. Small fish, such as sardines and anchovies, have more than doubled in number—largely because there are not enough big fish to eat them. This trend is a problem because ecosystems need predators to be stable. Predators are necessary to weed out4 the sick and weak individuals. Without this weeding out, or survival of the fittest, ecosystems become less stable.

As a result, fish are less able to survive difficulties such as pollution, environmental change, or changes in the food supply.

A Future for Fish?

A study published in 2006 in the journal *Science* made a prediction: If we continue to overfish the oceans, **most of the** fish that we catch now—from tuna to sardines—will largely disappear by 2050. However, the researchers say we can prevent this situation if we restore the ocean's biodiversity. Scientists say there are a few ways we can do this. First, commercial fishing companies need to catch fewer fish. This will increase **the number of** large predatory fish. Another way to improve the biodiversity of the oceans is to develop aquaculture—fish farming. Growing fish on farms means we can rely less on wild-caught fish. This gives species the opportunity to restore themselves. In addition, we can make good choices about what we eat. For example, we can stop eating the fish that are the most in danger. If we are careful today, we can still look forward to a future with fish.

Activity 2: Concordancing task for the key lexical bundles
(Neely & Cortes, 2009; Salazar, 2014)

Step 1: Try to understand each concordance line taken from authentic academic texts in COCA containing "*most of the*" for meaning and functions.

• …was chosen for the study for several reasons. First, it was assumed that **most of the** students, having been educationally and/or economically disadvantaged, probably had little to…
• …not secret, and is not the result of examinations, tests or scans. **Most of the** useful stuff is known to the registering patient, and so giving new…
• …are involved in summarising new patient records when they arrive, and a realisation that **most of the** work is already done comes as a considerable relief. Summarising a couple…
• …not really clear how much exercise you have to do to get the benefits, **most of the** recommendations appear to be based on a' best guess' approach…
• …more of a pain in the neck than it used to be. **Most of the** information required by the practice does not need a medical to gather…
• …have but also additional measurement error because of the mismatch between students' abilities and **most of the** test's content. For example, on the hypothetical test depicted in Figure 1…
• …to correctly answer the math problems. In this situation, we would recommend that **most of the** students in the group receive this mathematical instruction immediately and at a faster…
• …as well as in several other U.S. states; one was working in Japan. **Most of the** remaining 18 were involved in education in some capacity, whether as instructional…
• …part of an extensive review of literature, Maurino (2007) found that? **most of the** studies stated that online discussions have the potential for the development and fostering…
• …traditional route into higher education at colleges from the 1980s; while colleges have hosted **most of the** Access courses that have constituted an alternative route to higher education since that…
• …conflicting messages that seem even more pronounced to modern viewers of the monument. **Most of the** other traces we once might have had to visualize the bagno and the…
• …This circumstance provides us with the chance to get to know them better than **most of the** other staff members do. We can help set the tone for the…
• …topics will be most helpful to you in your role. # So far, **most of the** opportunities mentioned could have been available to previous educators, though certainly not…
• …in the use of the media center and its resources. It was assumed that **most of the** instruction would happen with individual students in the media center. The media…

Step 2: Notice the words immediately preceding and following 'most of the'. Is there a pattern?
………
……
……
…….
Step 3: What do you think the speaker's purpose was in using 'most of the'?

Step 1: Try to understand each concordance line taken from authentic academic texts in COCA containing "in response to" for meaning and functions.

• …percent it spent during the Cold War. " Not very much has happened **in response to** Russia's actions, " says Wiktorin. " The politicians talk about changes…
• …and phone messages led to endless rounds of phone tag (leaving messages **in response to** messages). The supervisor of our student assistants identified a very creative approach…
• …into account and revised the page to answer as many comments as possible. **In response to** a request from one of our reference librarians, for example, we added…
• …I will likely need to continue to adapt my teaching as Primo itself evolves **in response to** user needs. There are many advantages to Primo, particularly for those new…
• …digital humanities, and copyright sessions have been offered in the last few years **in response to** perceptions of student needs gleaned throughout the academic year. Some topics that were…
• …For example, researchers have claimed that student engagement has increased " dramatically **in response to** the enhanced educational access and opportunities afforded by 1:1 computing "…
• …community, please describe how the program can improve in this capacity? " **In response to** the first question, the Completers responded unanimously (11/11) in the affirmative…
• …in providing a learning community to support his/her personal learning needs provided this comment **in response to** the second common question: " The other cohorts sic were more than willing…
• …accumulate in injured areas of nerves, and an increase in collagen synthesis occurs **in response to** trauma. Similar to other organ systems, this collagen formation increases tissue strength…
• …identified as best practice and examined as a conceptual framework in research-based literature. **In response to** growing interest in EBP across the library sector, the peer-review journal…
• …deaf to the flow of history. It does not adapt or change **in response to** changing circumstances. At the same time, however, Christianity is the light…

Step 2: Notice the words immediately preceding and following 'in response to'. Is there a pattern?

……
……
……
……
……

Step 3: What do you think the speaker's purpose was in using 'in response to'?

……
……
……...
……
…….

Step 1: Try to understand each concordance line taken from authentic academic texts in COCA containing "*as a result*" for meaning and functions.

• …ideas, rather than asking all participants to discuss the same ideas. **As a result**, I was unable to get multiple students' perspectives on the ideas that individual…
• …had around 600 friends, many of whom were only casual acquaintances. **As a result**, Craig said his status updates are infrequent -- " probably like once a month…
• …revealed that one in five adults do not use the Internet. **As a result**, we anticipated that it would be informative to describe how a self-selected online forum…
• …focused specifically on the concept of thinking dispositions and the arts. **As a result**, they developed a program designed to integrate arts into the classroom. Although this…
• …the CCSS, with different academic terms used in each content area. **As a result**, teachers may be confused by the various terms used to define questioning types and…
• …convergent in science and literal in ELA and social studies). **As a result**, teachers may be confused by the various terms used to define types of questioning…
• …change, has indeed been a hallmark of the past several decades. **As a result**, the trivia-based conversations regarding overdues and inventory are shrinking under the weight of the…
• …as participants' moods and experiences are subject to change over time. **As a result**, it is not known whether the findings might have been affected by confounding factors…
• …bronchitis may develop. Skin and eye irritation can also occur. **As a result** of repeated or prolonged exposure, ill-health effects such as acute and chronic inflammatory respiratory…
• …techniques and materials? The reading specialist candidates demonstrated professional growth **as a result** of using technology-based instructional techniques and materials by adding a digital twist to their already-familiar…
• …Relationships between music education faculty and conductors are strengthening **as a result** of these collaborations.We are now in the process of creating an interactive website to provide…
• …is an opportunity for students to apply the content knowledge and skills acquired **as a result** of their experiences. In this unit, students work in small groups to create…

Step 2: Notice the words immediately preceding and following 'as a result'. Is there a pattern?
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…….
Step 3: What do you think the speaker's purpose was in using 'as a result' ?
………
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…….

Step 1: Try to understand each concordance line taken from authentic academic texts in COCA containing "*the number of*" for meaning and functions.

• …Current adolescent literacy rates cause concerns at **the number of** students who graduate high school with basic or below-basic reading skills…
• …conducted by Leana (2011) found a positive correlation between math scores and **the number of** teacher conversations with colleagues that centered on math conducted in an environment of trust…
• …reread the entire passage. This error-correction procedure is effective for helping students reduce **the number of** errors made during repeated reading of the passage and increase the rate of reading…
• …student, was trained to listen to the sessions and complete a checklist indicating **the number of** procedural steps in the given intervention condition that were accurately completed by the examiner…
• …the society through the following activities: # The Ministry of Education found that **the number of** hidden illiterate people was around 3,100,000 and therefore developed projects " to make the…
• …Education Centres affiliated to the Ministry of National Education in an attempt to increase **the number of** people who can read and write. In addition to these courses…
• …other institutions affiliated to the municipalities opened and continue to open courses to increase **the number of** adult literates in Turkey. # Because they are also a part of a…
• …and even at private schools. # Even though there are increases in **the number of** the publishing houses and books read in recent years (e.g. 46 thousand books…
• …reach the qualified audience. Number of state libraries is inadequate. Even though **the number of** children's libraries has increased in recent years as a result of efforts of…
• …as anticipated, by 2018, the number of full-time online students will outnumber **the number of** students enrolled exclusively in traditional seated classes (Ambient Insight, 2012)…
• …innovative medical procedures such as stents by " nonstars " was positively dependent upon **the number of** "stars" practicing simultaneously at the same hospitals. Stars were defined as…

Step 2: Notice the words immediately preceding and following 'the number of'. Is there a pattern?

……
……
……
……

Step 3: What do you think the speaker's purpose was in using 'the number of'?

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RETRIEVAL ACTIVITIES

Activity 1: Fill in the blanks examples taken from COCA
(Neely & Cortes, 2009)

Step 1: In each of the following sentences, a lexical bundle is missing. Using the context of the sentence, decide which bundle should go in the each blank. Choose among the lexical bundles;

'most of the'	***'as a result'***	***'in response to'***	***'the number of***

1. If the popularity of online education continues as anticipated, by 2018, _____ full-time online students will outnumber _____ students enrolled exclusively in traditional seated classes.
2. She positions herself as the daughter and sister of heroic figures who risked their lives in order to find more opportunity for their family. _____, she herself begins to take on heroic qualities.
3. The teacher typically did not link the responses of learners. Learners offered a one-on-one response, but mainly _____ what the teacher said.
4. You know that I think it's important for them to learn to be a part of the team or a part of the group. I think in life _____ time you're going to be working with other people.(most of the)
5. Program ShoppingStudents entering community colleges often do not have a good idea of what they want to study. _____, they may take courses in a variety of academic areas.

Activity 2: Rephrasing activity
(Peters & Pauwels, 2015)
Step 1: Rephrase the isolated sentences containing lexical bundles and using the clue in brackets.

1. Community college students generally attend on a parttime basis given their many responsibilities, frequently work on a full-time basis, and are responsible for their families' financial well-being. Consequently, they spend less time on campus, and lacking knowledge of programs and services. (**as a result**)
……
……...……
……

2. Employers rarely ask to see a portfolio, but, when they do, it should be used as a visual aid by the candidate to answer questions. (**in response to**)
……
……
……

3. University life contains many difficulties that students must overcome in order to succeed. These may differ with each student and with each institute as well. This research concentrates on the general difficulties which are faced by many students. (**most of the**)

……
……
……

4. Passengers were quantitatively too small to alter the overall working-class character and low-income status of Indian settlers. (**the number of**)
.....
.....
.....

GENERATIVE ACTIVITIES

Activity 1:Substitution Task
(Salazar, 2014)

Step 1: Replace the underlined expressions in the sentences below with a similar expression from the box.

the number of	**most of the**	**as a result**	**in response to**

6. Michelle read aloud something informational each day **in answer to** students'questions and interests.
7. Research has consistently indicated that when students with disabilities participate in WBLEs (e.g., career awareness, work study, paid employment), their postschool outcomes are likely to improve a lot. **Consequently**, it is critical for students with disabilities to have these experiences as part of their high school transition services.
8. Plan readings **quantitatively** students must do to gain a deep understanding.
9. Thus, reading progress data were available to teachers for **many** students at seven measurement points.

Activity 2: Use the key lexical bundles in a meaningful sentence activity
(Peters & Pauwels, 2015)

Step 1: Make complete sentences using these lexical bundles below:
"most of the" "as a result" "in response to" "the number of"

5. _____
_____*(most of the)*
6. _____
_____*(as a result)*
7. _____
_____*(in response to)*
8. _____
_____*(the number of)*

Activity 3: Rewriting the paragraph using the key lexical bundles
(Cortes, 2006)

Step 1: These paragraphs have been taken from COCA. Some lexical bundles appeared in these paragraphs but they have been deleted. Please, rewrite the paragraph and add the lexical bundles where you think it fits best to convey the corresponding function.

1. **(as a result)**
   …When the men were away at work during the day, the women of the village would monitor each other's behavior. Jamila was a young, secluded, uneducated, unemployed, and unmarried girl who lived with her impoverished, widowed mother. she was at risk of being approached by higher-status boys in the village. One sent her a love letter, which she could not read, and trinkets that she had someone else return; another boy, Younis, drugged and raped her.

2. **(the number of)**
   Due to schedule constraints, there were several days on which the intervention could not be implemented. Therefore, with the end of the school year approaching, lessons per day and per week increased for all groups. All groups participated in approximately the same amount of groups per day and per week, but increasing lessons per day and week at the end of the intervention was not optimal. A second limitation is the small number of students who participated in this study…

3. **(most of the)**

   HOW DO YOU KNOW YOU ARE BEING BULLIED? # I didn't know I was being bullied, I just knew that I was unhappy in my job. My boss didn't like me much and was rude to me at every opportunity, belittling me in front of my colleagues. I worked for a large well-known professional organisation and this all happened 20 years ago, but the memory of that time is as clear to me today as it was then. The nature of my work meant that I could keep out of his way time, and colleagues would deal with him directly so I wouldn't have to. At meetings I mostly kept quiet but when I did speak he either ignored me or said things like " be quiet, you are just a barrack-room lawyer " in a nasty and accusing tone.

4. **(in response to)**

   It is important to approach the evaluation of students' writing skills systematically and thoughtfully. As mentioned above, teachers may consider using a task analysis to identify the important subskills within a broader writing task. For instance, if teaching a student to select responses to complete sentence frames, some of the critical subskills might include pointing to the picture prompt, a question such as " What will you be writing about today?".

Activity 4: How should we treat animals? Write an argumentative paragraph about it

Use the target lexical bundles (in response to, most of the, as aresult, the number of) (Nation, 2001)

WORKSHEET 3

(According to the, be able to, in other words, part of the)

NOTICING ACTIVITIES

Activity 1: Analyzing and classifying the lexical bundles collaboratively

(Nation, 2001)

Step 1: Read the following extracts taken from the academic texts you have studied at your textbooks. Look at the underlined expressions and work in pairs to guess their meanings and functions from the contexts.

THE ART OF MEMORY

We all try to remember certain things in our daily lives: telephone numbers, email addresses, facts that we learn in class, important tasks. But did you know that people once had great respect1 for memory? People began to value memory as a skill about 2,500 years ago. That's when the poet Simonides of Ceos discovered a powerful technique known as the loci2 method. Simonides realized that it's easier to remember places and locations than it is to remember lists of names, for example. **According to the** loci method, if you think of a very familiar place, and visualize certain things in that place, you can keep those things in your memory for a long time. Simonides called this imagined place a "memory palace." Your memory palace can be any place that you know well, such as your home or your school. To use the loci method to remember a list of tasks, for example, visualize yourself walking through your house. Imagine yourself doing each task in a different room. Later, when you want to remember your list of tasks, visualize yourself walking through your house again. You will remember your list of tasks as you see yourself performing each one. Nearly 2,000 years later, a man in 15th-century Italy named Peter of Ravenna used the loci method to memorize books and poems. He memorized religious texts, all of the laws of the time, 200 speeches, and 1,000 poems. By using the loci method, he **was able to** reread books stored in the "memory palaces" of his mind. "When I [travel] I can truly say I carry everything I own with me," he wrote. When Simonides and Peter of Ravenna were alive, books and pens were not widely available for people to write notes with, so people had to remember what they learned. Mary Carruthers is the author of *The Book of Memory*, a study of the role of memory techniques in the past. She writes, "Ancient and medieval3 people reserved their awe for memory." **In other words**, these people thought that a genius was a person with excellent memory. They considered memory to be an art and a great virtue4 because a person with a good memory could turn external knowledge into internal knowledge. After Simonides' discovery of the loci method, others continued to develop the art of memory. Memorization gained a complex set of rules and instructions. Students of memory learned what to remember and techniques for how to remember it. In fact, there are long traditions of memory training in many **parts of the** world. In some cultures, memorization of religious texts is considered a great achievement; many other societies value storytellers who can retell myths and folktales from the past.

Activity 2: Concordancing task for the key lexical bundles
(Neely & Cortes, 2009; Salazar, 2014)

Step 1: Examine the concordance lines taken from authentic academic texts in COCA containing "*according to the*" for meaning and functions.

- …percentile indicate Basic skill, and scores above the 70th percentile suggest Proficient skill. **According to the** PIPA authors, students whose skill in phonological awareness is considered Emerging or Below Basic require some type of intensive intervention to assist with the acquisition of those skills.
- …take the tests that are designed to take 10 to 15 minutes per participant (**according to the** test publisher's directions). Each test was administered and recorded by two testers. The words were recorded as read correctly (=1) or incorrectly (=0).
- …inclusion of students with disabilities in all classes, including those in music education. **According tothe** Individuals with Disabilities in Education Act of 2004, students with disabilities should have access to the general curriculum to the greatest extent possible, and that involves the arts as well.
- …cotton as the state's most important cash crop was a relatively recent development. **According to the** 1840 census, Georgia farmers produced 169,392,396 pounds of the cash crop, and at 5 per pound the state's cotton crop was valued at $8.47 million.
- …the two decades before the Civil War was the emergence of horticulture in Georgia. **According to the** historian Cheryl Lyon-Jenness, horticulture became a national trend between 1850 and 1880.
- …Over the years, the character of the course underwent certain changes; however, it has been given in its current form for the past few years. **According to the** syllabus, after the PEN-SLIS course, the student should be able to (a) describe Swedish libraries; (b) describe practical activities in Swedish libraries from their own experience; and (c) relate their description of the library to an organizational, societal, or cultural context.
- …Do we learn differently now than we did fifteen or twenty years ago? **According to the** Schools and Staffing Survey, the 2011-2012 data showed the average age of a United States public educator as 42.4
- **…According to the** Turkish Ministry of Foreign Affairs, about 4,000,000 live in Western European countries, 300,000 in North America, 200,000 in the Middle East, and 150,000 in Australia.
- …it will take many decades for sharks to fully recover. **According to the** International Union for Conservation of Nature, 24 percent of shark species worldwide are threatened or endangered. " Any idea that sharks have come back in large numbers in a few years is patently false,
- … it will take many decades for sharks to fully recover. **According to the** International Union for Conservation of Nature, 24 percent of shark species worldwide are threatened or endangered. " Any idea that sharks have come back in large numbers in a few years is patently false,

Step 2: Notice the words immediately preceding and following “according to the”. Is there a pattern?

………
……
……

Step 3: What do you think the speaker’s purpose was in using “according to the’?

………
……
……..……

Step 1: Examine the concordance lines taken from authentic academic texts in COCA containing “be able to” for meaning and functions.

- …He wants to **be able to** eat with the other people, like getting accepted. " Following these initial conversations, the teacher invited them to listen to the poet reading his poem
- …Consider the many related reading skills in the area of science. One must **be able to** read with understanding the Periodic Chart. Who else but the teacher would guide the student through this experience
- …To be successful readers of science the student must **be able to** recognize the many new words he/she may encounter
- …As a measure of comprehension in math, the student should **be able to** engage his thinking with the estimation of a reasonable answer. # No one said teaching students would be an easy job
- … I value traditional learning experiences (I think it is important for students to **be able to** demonstrate what they can do in certain disciplines)
- …After her first experience she stated, " It's nice to **be able to** discuss it (TRT paired teaching) afterwards, what really happened. I think teaming is wonderful. "
- …I also hope, when I go, that I will **be able to** take many examples of how teachers in the United States have worked together to decrease isolation and increase professional collaboration for the benefit of our students
- …To become fluent and capable of comprehending text, students must first **be able to** consistently identify isolated sounds and patterns, blend together multiple sounds to form words, segment words into isolated sounds, and transfer these skills to the reading of words in connected text
- …it's likely that more sophisticated tools will **be able to** assist school librarians in locating relevant images for learning
- …I expected that when I came to the USA, I would **be able to** join in one American student group that mentors me how to study, speak, and read, but I do not see any grouping support from American students.
- …Baseball " It makes it difficult to take so many credit hours and **be able to** travel at the same time. Several members must cut into practice time because they have to take a required class

Step 2: Notice the words immediately preceding and following ‘be able to’. Is there a pattern?
……
……
…….
……
……
Step 3: What do you think the speaker’s purpose was in using ‘be able to’?
……
……
……...

Step 1: Examine the concordance lines taken from authentic academic texts in COCA containing "*in other words*" for meaning and functions.

• …students come to understand the rhetorical contexts in which writing occurs and the ways such contexts shape language use. **In other words**, students can develop an understanding of the role of an audience and the position of an author in shaping a written text.
• … This student-directed approach enables students to gain a deeper understanding of the content while strengthening their critical thinking skills and intellectual development. **In other words**, students have to listen, analyze, compromise, synthesize ideas, and draw? conclusions in order to solve problems
• …Teachers need to find out what works for which students. **In other words**, ELL writing teachers need to look for teaching methods that address individual learning needs.
• They also had time each day to read what they chose, and to do so without having a lot of adult interference. **In other words**, they had the time to lose themselves in reading what they had chosen.
• …The second component is evidence of varied levels of reflection. **In other words**, is the student aware of how other students' postings are similar and different from one another?
• …Bourdieu argues that we unconsciously choose ways of speaking, writing or gesturing in anticipation of how we will be responded to by others. **In other words**, we speak in ways that will be received well by people situated more favourably that we are in the social order.
• …Academic help-seeking in college is an achievement-related behavior rather than a dependent behavior to fulfill a need for support and nurture. **In other words**, students who are already performing well in their classes, not those in academic distress, are more likely to seek academic assistance in order to perform at even higher levels.
• …The choice exercise was repeated for each participant. **In other words**, each participant was invited to complete two choice exercises with four combinations in each exercise.
• …Underlying causes are typically part of the fabric of a society. **In other words**, they are systemic, institutional problems
• …Importantly, Europa's day is the same as its orbital period; **in other words**, Europa always shows the same face to Jupiter.
• …Socialisation refers to education for assimilating people into existing traditions of society. Subjectification is associated with ways of being and becoming a human subject or, **in other words**, the impact of education on the person
• …AnalysisCollocation refers to a phenomenon when two words occur together with statistical significance. **In other words**, when one word is present, there is statistical probability that its collocate will occur close to it in text.

Step 2: Notice the words immediately preceding and following 'in other words'. Is there a pattern?

………
……

Step 3: What do you think the speaker's purpose was in using 'in other words' ?

…
……
……
……
……
Step 1: Examine the concordance lines taken from authentic academic texts in COCA containing "*part of the*" for meaning and functions.

- …Applying these tools in a meaningful activity enables literacy practices to become an intrinsic **part of the** students' intellectual toolbox
- …ission One and then to use the design knowledge that surfaced through this work to inform the design and making of a new game with a new purpose -- to teach about " positive moral choices " as **part of the** religious education curriculum.
- …Cantrell and colleagues (2010) reported on a reading intervention effort focused on comprehension strategy instruction, the Learning Strategies Curriculum, which is **part of the** Strategies Intervention Model
- …the students focused on this **part of the** text during their conversations. After a few minutes, the teacher said, " There is another technology that the author describes from a century, or 100 years, earlier.
- …This insight implies a careful balance for teachers to commit to allowing students to work through their thinking while being available to help as needed. **Part of the** teacher's responsibility is to direct students' attention to the procedures they use, so that students do not focus on right answers without understanding the process and underlying concepts
- …In addition, encouraging professionals to participate in school leadership alters the perception of ownership in that the feeling of ownership increases when teachers become **part of the** decision-making process.
- …The candidates are immersed in the K-12 experience by their presence on the school's campus three days each week. They are able to become a **part of the** school culture outside of their classroom and begin to take some ownership of the students' learning.
- …An essential **part of the** process for beginners involves learning the alphabetic system, that is, letter-sound correspondences and spelling patterns, and learning how to apply this knowledge in their reading
- …They assessed students at grades 2, 4, and 8. In one **part of the** study, the authors selected from the sample of 527 students who could be identified as poor readers .
- …Students reconstructed their learner identities by using the knowledge and theories from their course as **part of the** development of the self. It helped them to learn who they were and what they were supposed to do, developing their senses of identity through their interactions with others in particular situations.
- …Film, slide, opaque, and overhead projectors along with television sets dominated the middle **part of the** last century. However, they've been replaced by data projectors and electronic whiteboards for large-group instruction
- …the media specialist was encouraged to become fully involved in the process of instructional design. This approach moved the media program from a support service to an essential **part of the** total instructional program.

Step 2: Notice the words immediately preceding and following 'as well as'. Is there a pattern?
……
……
……

Step 3: What do you think the speaker's purpose was in using 'as well as'?

………
……

……
……

RETRIEVAL ACTIVITIES

Activity 1: Fill in the blanks examples taken from COCA
(Neely & Cortes, 2009)

Step 1: In each of the following sentences, a lexical bundle is missing. Using the context of the sentence, decide which bundle should go in the each blank. Choose among the lexical bundles;

'part of the'	***'be able to'***	***'according to the'***	***'in other words'***

1. Do we learn differently now than we did fifteen or twenty years ago? _____ Schools and Staffing Survey, the 2011-2012 data showed the average age of a United States public educator as 42.4. (according to the)
2. Importantly, Europa's day is the same as its orbital period; _____, Europa always shows the same face to Jupiter. (in other words)
3. To be successful readers of science the student must _____ recognize the many new words he/she may encounter. (be able to)
4. An essential _____ process for beginners involves learning the alphabetic system, that is, letter-sound correspondences and spelling patterns, and learning how to apply this knowledge in their reading. (part of the)
5. This student-directed approach enables students to gain a deeper understanding of the content while strengthening their critical thinking skills and intellectual development_____, students have to listen, analyze, compromise, synthesize ideas, and draw? conclusions in order to solve problems. (in other words)

Activity 2: Rephrasing activity
(Peters & Pauwels, 2015)

Step 1: Rephrase the isolated sentences containing lexical bundles and using the clue in brackets.

1. It does not create an enjoyable or motivating environment but harms self-efficacy; that is to say, it harms their confidence and what they believe they can accomplish. **(in other words)**
   ……
   ……
   …….

2. I welcome your feedback on this and future columns. Since the second half of the 20th century, mathematics classrooms have been undergoing major change in terms of curriculum and instruction. **(part of the)**
   ……
   ……
   …….

3. There are principles and concepts to be understood and implemented based on the students' best interests. **(according to the)**

……
……
…….

4. You have to know the word in many ways and you must have the skill of spelling it, too**. (be able to)**
……
……
……....

GENERATIVE ACTIVITIES

Activity 1:Substitution Task
(Salazar, 2014)

Step 1: Replace the underlined expressions in the sentences below with a similar expression from the box.

'part of the'	***'be able to'***	***'according to the'***	***'in other words'***

10. The students focused on this **section of the** text during their conversations.
11. The choice exercise was repeated for each participant. **That is to say**, each participant was invited to complete two choice exercises with four combinations in each exercise.
12. A specific improvement has been achieved in the country. **Based on the** 2012 results of the PISA exam, Turkey achieved 11 points of improvement in reading
13. To be successful readers of science the student must **have the skill to** recognize the many new words he/she may encounter.

Activity 2: Use the key lexical bundles in a meaningful sentence activity
(Peters & Pauwels, 2015)
Step 1: Make complete sentences using these lexical bundles below:

'part of the', 'be able to', 'according to the', 'in other words'

9. _____
_____*(part of the)*
10. _____
_____*(be able to)*
11. _____
_____*(according to the)*
12. _____
_____*(in other words)*

Activity 3: Rewriting the paragraph using the key lexical bundles

(Cortes, 2006)

Step 1: These paragraphs have been taken from COCA. Some lexical bundles appeared in these paragraphs but they have been deleted. Please, rewrite the paragraph and add the lexical bundles where you think it fits best to convey the corresponding function.

5. (according to the)

By December, the Gulf of Alaska is one of the stormiest places anywhere. **(According to the)** National Weather Service, gale-force winds are present 15 percent of the time during December and January; 20 percent of the time, the sea swells top 17 feet; and in an average year, hurricane-force winds hit two or three times. The sensible approach would have been to wait out the winter in Dutch Harbor, safe in the Aleutians, on the edge of the gulf. The Kulluk had a customized berth in Dutch Harbor -- rounded to match its hull -- and would be better positioned.

6. (be able to)

The next class, this student's mother and father arrive at the music room door carrying a large, beautifully adorned instrument. I am surprised and nervous, as I do not know this instrument. How will I (**be able to)** explain about this special instrument to my students when I do not know what it is myself? The girl's parents begin to set it up at the front of the class. I quietly, but curiously, go over to ask the name of the instrument. The parents inform me that it is a yangqin, a Chinese dulcimer. The student arrives and sits down at the instrument and plays a beautiful Chinese piece

7. (In other words)

Build a mobile-enabled website: it's not hard You know a website is a must for your small business. Prospects and customers expect to find you online. But having a website is not enough -- you need one that looks good and works great on mobile devices. More than a third of Americans access websites primarily or solely on a smartphone. When designing your website, think " mobile first. " In April, Google released a new algorithm that boosts mobile-ready websites. (**In other words)**, websites not adapted for mobile appear lower in search results.

8. (part of the)

However, many of the children's errors were semantically and syntactically correct responses that simply did not follow the model. For example, on the previous " will eat " example, one child responded with " Next these first graders? are going to be eating, " which is a perfectly reasonable semantic and syntactic response to the prompt. However, because it lacked the will + verb structure, it was scored as an error. (**Part of the)** problem was that the children did not always appear to remember the grammatical mode

Activity 4: Write a problem-solution paragraph about the following problem:

- **"You are learning a foreign language. You are having trouble remembering new words. How might you solve this problem?"**
  Use target lexical bundles (part of the, be able to, according to the, in other words) (Nation, 2001)

WORKSHEET 4

(the rest of, the importance of, there was no, the level of)

NOTICING ACTIVITIES

Activity 1: Analyzing and classifying the lexical bundles collaboratively

(Nation, 2001)

Step 1: Read the following extracts taken from the academic texts you have studied at your textbooks. Look at the underlined expressions and work in pairs to guess their meanings and functions from the contexts.

Train Your Brain!

Is there anything you can do to have a better memory? Research shows that mental and physical exercise and lifestyle choices can affect memory. In fact, many experts agree it is possible to improve your memory. Here are some tips:

Avoid stress

Recent research shows that stress is bad for the brain. In fact, one study connects worrying with memory loss. Therefore, if you can avoid stress in your life, you may also improve your memory. Relaxation techniques like yoga are one way to reduce stress.

Get some rest

"Poor sleep before or after learning makes it hard to encode new memories," says Harvard University scientist Robert Stickgold. One study shows that by getting a good night's sleep, people remember a motor skill (such as piano playing) 30 percent better.

Eat right

Your brain can benefit from a healthy diet, just like **the rest of** your body. Foods that have antioxidants, such as blueberries, are good for brain cells. This helps memory.

Sleep and Memory

Many people think that sleep must be important for learning and memory, but until recently **there was no** proof. Scientists also believe the hippocampus plays a role in making long-term memories, but they weren't sure how. Now they understand how the process happens—and why sleep is so important.

Memories in Motion

A research team at Rutgers University recently discovered a type of brain activity that happens during sleep. The activity transfers new information from the hippocampus to the neocortex. The neocortex stores long-term memories. The researchers call the transferring activity "sharp wave ripples," because the transferring activity looks like powerful, short waves. The brain creates these waves in the hippocampus during **the deepest levels of** sleep. The Rutgers scientists discovered the wave activity in a 2009 study using rats. They trained the rats to learn a route in a maze. Then they let the rats sleep after the training session. They gave one group of sleeping rats a drug. The drug stopped the rats' wave activity. As a result, this group of rats had trouble remembering the route. The reason? The new information didn't have a chance to leave the hippocampus and go to the neocortex.

Lifelong Memories

The experiment explains how we create long-term memories. The wave activity transfers short-term

memories from the hippocampus to the neocortex. Then the neocortex turns the sharp wave ripples into long-term memories. Researcher György Buzsaki says this is "why certain events may only take place once in the waking state and yet can be remembered for a lifetime."The Rutgers study is important because it proves **the importance of** sleep for learning and memory. It also finally explains how the brain makes long-term memories.

Activity 2: Concordancing task for the key lexical bundles

(Neely & Cortes, 2009; Salazar, 2014)

Step 1: Try to understand each concordance line taken from authentic academic texts in COCA containing "*the rest of*" for meaning and functions.

• …I mean, who are you? You hate bloggers. You make fun of Twitter. You don't even have a Facebook page. You're the one who doesn't exist. You're doing this because you're scared to death, like **the rest of** us.
• …Despite these recommendations, the rate of breast cancer remains high in some areas. In Alberta, for example, the rate was recently reported to be as high as 50%, compared with 32% for **the rest of** Canada (3). This difference may be due to patient preference, although no conclusions can be drawn from these epidemiological data.
• …According to a visitor of the early eighteenth century, the slaves and **the rest of** the crew were permitted to walk around the city during the day to work, although the bagno would be locked and guarded at night.
• …Baseball " I really don't like it because some or most of us do not know what we want to do for **the rest of** our lives when we first enter college "
• …Other students commented: # After yoga practices, I feel extremely calm and at peace with everything. Even for **the rest of** the day I find myself breathing deeper and feeling more calm, rather than stressed as usual, and that is the biggest way it has impacted my life.
• …the students were all attentive and ready to begin the day's work. The students were also visiting the school library asking for the books so they could read **the rest of** the story or the other chapters in the book. The impact on their reading and their focus in math was impressive to both the teacher and the librarian.
• …If you like the Start screen-like effect but still want to use **the rest of** the traditional desktop, you can simply expand the Start menu to full-screen using the button in its upper-right corner.
• …A selected child then responds to the question with a command telling **the rest of** the children to act. In this game, Javanese children were able to increase their vocabularies and develop their problem-solving skills and establish a sense of community through gotong royong, an important part of Javanese cultural identity
• …A successful arts program should not be separated from **the rest of** the school. Seeking out natural connections with other disciplines across the school curriculum will continue to help strengthen music's place within the school framework.
• …But poor men would bend her, and doing things with poor men, # And **the rest of** things in life that were for poor women.

Step 2: Notice the words immediately preceding and following 'the rest of'. Is there a pattern?

…….

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Step 3: What do you think the speaker's purpose was in using 'the rest of'?

…….

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Step 1: Try to understand each concordance lines taken from authentic academic texts in COCA containing "the importance of" for meaning and functions.

• …Jan mentioned in her third interview that she realized **the importance of** using more than one book with related themes. She understood that this was a way to increase connections to texts and encourage depth of thought for children.
• …Significant research points to the fact that improved teacher support is a key element of this reform. The author outlines data to emphasize **the importance of** teacher support, particularly in at-risk public high schools.
• …Moyer (2011) suggested that educators need to modernize their definition of reading to include reading in digital modalities. # Although researchers have reminded us of **the importance of** broadening the investigation of young people's reading practices to include not only print- but also online-based materials
• … " I always loved science. " We talk with other adults about **the importance of** education, but when we speak with kids, we often give the impression that school is more a minimum-security prison than the staging area for a successful life.
• …Demographic differences are one factor that influence college student drinking behaviors (Ingle & Fumham, 1996) along with the size of the student body, geographical location, and **the importance of** athletics on campus
• …The findings show **the importance of** using materials for supporting children's writing skills, because more than one child came to writing center, and more than one spent time in this center.
• …As digital technology becomes more affordable and as communities recognize **the importance of** educational technology, proponents assert that providing students with ubiquitous access to computing devices holds great promise for personalized instruction and enriched curriculum.
• …Respondents were asked to rate **the importance of** a variety of factors when selecting a career. Students identified lifestyle, amount of patient interaction, personality of staff members and job availability as the most important factors in career selection.
• …Children's creative collaborations: **The importance of** friendship when working together on a musical composition.
• …Comprehension is the prerequisite of reading. If there is no comprehension, it means that reading is not successful (Ciftci and Temizyurek 2008). Considering that text is in the centre of reading education, **the importance of** the text becomes more clear. In order for the reading comprehension process to be effective and successful, the text should have certain characteristics.

Step 2: Notice the words immediately preceding and following 'the importance of'. Is there a pattern?

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Step 3: What do you think the speaker's purpose was in using 'the importance of'?

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Step 1: Try to understand each concordance lines taken from authentic academic texts in COCA containing "*there was no*" for meaning and functions.

• …As I looked around the room, the students were compliant and **there was no** evidence of disruptive or inappropriate behavior; however, I asked myself the question, " Were the students engaged?
• …But just like the WAF Band, she refused to leave. " **There was no** way I was going to allow them to push me out of this band, " Awkerman declared. She stayed and played with the Long Beach Municipal Band for seventeen years until it lost the support of the city and disbanded.
• …**There was no** minimum or maximum number of questionnaires that students were required to complete during their four-hour shift, although students were encouraged to complete each questionnaire with as much detail as possible and to collect as many surveys as they could
• …There were several limitations to the present study. **There was no** control group for comparison.
• …As can be seen in Table 7, **there was no** significant relationship between the poor readers' level of reading comprehension and " temporal connectives ".
• …**There was no** significant difference between the groups with respect to the number of patients requiring operative revision of their coronal incision.
• …**There was no** significant interaction between the online medium and ethnicity, suggesting that though Black and Hispanic students may do worse on average in STEM courses than their White and Asian peers both online and face-to-face
• …While once an exploratory practice because **there was no**existing research on which to base such a model, faculty and invested school practitioners will continue to advance the model as standard practice in the K-12/ university partnership.
• …As can be seen in Table 6, **there was no** significant relationship between the good readers' level of reading comprehension and " temporal connectives "
• …He said that his father had lung cancer and that his mother was having breast cancer surgery the next day. **There was no** good-night kiss. " It wasn't very fair of me to drop that bomb.

Step 2: Notice the words immediately preceding and following 'there was no'. Is there a pattern?

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…….

Step 3: What do you think the speaker's purpose was in using 'there was no' ?

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Step 1: Try to understand each concordance lines taken from authentic academic texts in COCA containing "*the level of*" for meaning and functions.

• Specifically, previous researchers have found that increasing **the level of** difficulty in phonological awareness tasks (i.e., tasks that progress from rhyming and alliteration to segmentation at the syllable, onset and rime, and phoneme levels) throughout the program.
• I'm just suggesting that we fund our schools at a level consistent with **the level of** results we expect from them. Let's look at the facts. A landmark study by John Mackenzie has shown a modest but statistically significant correlation between per-pupil expenditures for K12 education and NAEP scores in reading and math
• The outcome of Research Question 3 involves the possibility of an association between **the level of** innovativeness of the individual and the perceived level of innovativeness of the organization.
• We employed checklists to indicate **the level of** teacher support, level of student engagement, and reliance of the equipment and computer programs. Researchers observed and noted student scores and typical peer interactions.
• Several researchers acknowledge technological and Internet access difficulties in some school environments that do not have the infrastructure to accommodate **the level of** access needed for interventions.
• In addition, **the level of** performance in the activity is determined by students' beliefs about how well they will perform the activity and the values they attach to the activity.
• On introduction of the intervention, there was an immediate increase in **the level of** the data in all three classrooms. The percent of students ready within 5 min of the start time increased by 50% to 68%.
• Researchers may consider examining **the level of** participation among students with disabilities who are included in general education classrooms that includes extensive use of teacher-led and small-group discussion.
• In addition, it is critical to learn not only more about **the level of** reading comprehension that students can achieve with intensive long-term intervention, but also more about the needs of students with IQs in the borderline range for ID (i.e., 70-80) who are typically not included in studies for those with reading problems.
• Job performance has been defined as " **the level of** productivity of an individual employee, relative to his or her peers, on several job-related behaviors and outcomes.

Step 2: Notice the words immediately preceding and following 'the level of'. Is there a pattern?

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Step 3: What do you think the speaker's purpose was in using 'the level of'?

………
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RETRIEVAL ACTIVITIES

Activity 1: Fill in the blanks examples taken from COCA
(Neely & Cortes, 2009)

Step 1: In each of the following sentences, a lexical bundle is missing. Using the context of the sentence, decide which bundle should go in the each blank. Choose among the lexical bundles*;*

'the rest of'	***'there was no'***	***'the importance of'***	***'the level of***

1. As I looked around the room, the students were compliant and _____ evidence of disruptive or inappropriate behavior. (there was no)

2. I mean, who are you? You hate bloggers. You make fun of Twitter. You don't even have a Facebook page. You're the one who doesn't exist. You're doing this because you're scared to death, like _____ us. (the rest of)

3. We talk with other adults about _____ education, but when we speak with kids, we often give the impression that school is more a minimum-security prison than the staging area for a successful life.(the importance of)

4. _____ performance in the activity is determined by students' beliefs about how well they will perform the activity. (the level of)

5. As teacher candidates learn about _____ questioning in their instruction, they often learn to construct different types of questions for different content areas. (the importance of)

Activity 2: Rephrasing activity
(Peters & Pauwels, 2015)

Step 1: Rephrase the isolated sentences containing lexical bundles and using the clue in brackets.

1. Participants who were categorized as unchanged were coded as 0, while the remainder of the participants were coded with the number of 1. **(the rest of)**
   ……
   ……
   ……
2. Respondents stated that their tattoos have great significance on reflecting bonds and connections. **(the importance of)**
   .....
   .....
   .....
3. Remains of these baths did not exist on the south side of the Pantheon. **(there was no)**

……
……
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4. The purpose of this study was to investigate the extent to which contextualized spelling is used to support reading in first-grade core reading programs. **(the level of)**

……
……
…….

GENERATIVE ACTIVITIES

Activity 1:Substitution Task
(Salazar, 2014)

Step 1: Replace the underlined expressions in the sentences below with a similar expression from the box.

The level of	**the importance of**	**the rest of**	**there was no**

1. I told him **the extent of** my fear of flying, and I told him about my dad and my months of grief.

2. The cab of the truck was blue but **the remainder of** its frame was a dark rust color.

3. However, the existence and **significance** of this finding remains unclear. Historically, some have assumed that gynecomastia conferred an increased risk of developing breast cancer.

4. It was reasonable to want everyone to be happy; it was reasonable to -wish that boredom, frustration, and melancholy did **not exist**.

Activity 2: Use the key lexical bundles in a meaningful sentence activity
(Peters & Pauwels, 2015)

Step 1: Make complete sentences using these lexical bundles below:

'the rest of' 'the level of' 'there was no' 'the importance of'

13. _____
_____*(the rest of)*

14. _____
_____*(the importance of))*

15. _____
_____*(there was no)*

16. _____
_____*(t*
he level of)

Activity 3: Rewriting the paragraph using the key lexical bundles
(Cortes, 2006)

Step 1: These paragraphs have been taken from COCA. Some lexical bundles appeared in these paragraphs but they have been deleted. Please, rewrite the paragraph and add the lexical bundles where you think it fits best to convey the corresponding function.

1. the rest of

After yoga practices, I feel extremely calm and at peace with everything. Even for **(the rest of)** the day I find myself breathing deeper and feeling more calm, rather than stressed as usual, and that is the biggest way it has impacted my life. My favorite aspect of yoga is the fact that it is calming. No matter how awful my day has been or my week, it is the one class I can come into feeling stressed and come out feeling completely relaxed.

2. the importance of

Questioning is the basic feature underlying teaching and one of the most effective strategies for teaching content that influences children's learning. " Elementary teachers use questions more than any other teaching tool " . As teacher candidates learn about (**the importance of)** questioning in their instruction, they often learn to construct different types of questions for different content areas.

3. there was no

But just like the WAF Band, she refused to leave. " (**There was no)** way I was going to allow them to push me out of this band, " Awkerman declared. She stayed and played with the Long Beach Municipal Band for seventeen years until it lost the support of the city and disbanded

4. the level of

We employed checklists to indicate (**the level of**) teacher support, level of student engagement, and reliance of the equipment and computer programs. Researchers observed and noted student scores and typical peer interactions.

Activity 4:

- **Write an opinion paragraph about "What can we do to improve our memory?". Use the target lexical bundles (the level of, the rest of, there was no, the importance of)** (Nation, 2001)

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WORKSHEET REVIEW

the effect of	*it is important,*	*one of the,*	*as well as*
As a result	*in response to*	*most of the*	*the number of*
according to the	*in other words*	*part of the*	*be able to*
the rest of	*the importance of*	*there was no*	*the level of*

NOTICING ACTIVITIES

Activity 1: Concordancing task for the key lexical bundles
(Neely & Cortes, 2009; Salazar, 2014)

Step 1: Try to understand each concordance line taken from authentic academic texts in COCA containing "*the effect of, it is important, one of the, as well as*" for meaning and functions.

• …This study examined **the effect of** instruction in an active listening strategy on the communication skills of pre-service speech-language pathologists.
• … it seems clear that more research is needed if we are to understand **the effect of** the online environment on STEM courses, particularly at community colleges.
• …teachers are only prepared to teach non-English subjects and lack preparation in reading instruction, **one of the** most difficult challenges is helping students overcome their reading inability,
• …After showing a short scene, students might be asked to imagine they are **one of the** characters. By encouraging students to " step inside " the character.
• …**It is important** that teachers integrate technology into their classroom curriculum for the educational benefits.
• …Teaching online is different from teaching face-to-face. However, in both instances, detailed planning is a must! During this phase **it is important** that you take the time to determine procedures, break down tasks, and develop a timeline for your course. Start with your basic lesson plans, including learning objectives, and expand on the following items
• …At the work place, individuals must be good listeners to receive salient messages **as well as** communicate effectively. Thus, too frequently, errors are made in oral transactions
• …Some students learned how to use presentation programs to paste images and make sounds **as well as** to use data tables from select websites in order to convey a coherent and cogent message.

Step 2: Notice the words immediately preceding and following these lexical bundles. Is there a pattern?
………
……
……
…….
Step 3: What do you think the speaker's purpose was in using these bundles?

…
……
……
……
……

Step 1: Try to understand each concordance lines taken from authentic academic texts in COCA containing "*as a result, in response to, most of the, the number of*" for meaning and functions.

• …This circumstance provides us with the chance to get to know them better than **most of the** other staff members do.
• …You know that I think it's important for them to learn to be a part of the team or a part of the group. I think in life **most of the** time you're going to be working with other people.
• …Relationships between music education faculty and conductors are strengthening **as a result** of these collaborations. We are now in the process of creating an interactive website.
• …focused specifically on the concept of thinking dispositions and the arts. **As a result**, they developed a program designed to integrate arts into the classroom.
• …Current adolescent literacy rates cause concerns at **the number of** students who graduate high school with basic or below-basic reading skills.
• …This error-correction procedure is effective for helping students reduce **the number of** errors made during repeated reading of the passage and increase the rate of reading
• The teacher typically did not link the responses of learners. Learners offered a one-on-one response, but mainly **in response to** what the teacher said.
• Digital literacies scholarship has offered many teachers' perspectives on the roles that students' existing digital literacies can play in a writing classroom, but students' own perspectives have been largely missing from the literature. **In response to** this need for more student voices in digital literacies scholarship, I interviewed first-year college students to learn their perspectives on the subject.

Step 2: Notice the words immediately preceding and following 'these lexical bundles'. Is there a pattern?

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Step 3: What do you think the speaker's purpose was in using 'these lexical bundles?

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…….

Step 1: Try to understand each concordance lines taken from authentic academic texts in COCA containing "*according to the, in other words, part of the, be able to*" for meaning and functions.

• …**According to the** 1840 census, Georgia farmers produced 169,392,396 pounds of the cash crop, and at 5 per pound the state's cotton crop was valued at $8.47 million.
• …Do we learn differently now than we did fifteen or twenty years ago? **According to the** Schools and Staffing Survey, the 2011-2012 data showed the average age of a United States public educator as 42.4.
• …students come to understand the rhetorical contexts in which writing occurs and the ways such contexts shape language use. **In other words**, students can develop an understanding of the role of an audience and the position of an author in shaping a written text
• …Socialisation refers to education for assimilating people into existing traditions of society. Subjectification is associated with ways of being and becoming a human subject or, **in other words**, the impact of education on the person
• …Applying these tools in a meaningful activity enables literacy practices to become an intrinsic **part of the** students' intellectual toolbox.
• …An essential **part of the** process for beginners involves learning the alphabetic system, that is, letter-sound correspondences and spelling patterns, and learning how to apply this knowledge in their reading
• …He wants to **be able to** eat with the other people, like getting accepted. " Following these initial conversations, the teacher invited them to listen to the poet reading his poem
• …To be successful readers of science the student must **be able to** recognize the many new words he/she may encounter.

Step 2: Notice the words immediately preceding and following 'these lexical bundles'. Is there a pattern?

………
……
……
…….

Step 3: What do you think the speaker's purpose was in using 'these lexical bundles' ?

………
……

Step 1: Try to understand each concordance lines taken from authentic academic texts in COCA containing *"the rest of, there was no, the importance of, the level of"* for meaning and functions.

• …According to a visitor of the early eighteenth century, the slaves and **the rest of** the crew were permitted to walk around the city during the day to work, although the bagno would be locked and guarded at night.
• …Baseball " I really don't like it because some or most of us do not know what we want to do for **the rest of** our lives when we first enter college.'
• …As I looked around the room, the students were compliant and **there was no** evidence of disruptive or inappropriate behavior; however, I asked myself the question, " Were the students engaged?
• …There were several limitations to the present study. **There was no** control group for comparison.
• …Jan mentioned in her third interview that she realized **the importance of** using more than one book with related themes. She understood that this was a way to increase connections to texts and encourage depth of thought for children.
• … " I always loved science. " We talk with other adults about **the importance of** education, but when we speak with kids, we often give the impression that school is more a minimum-security prison than the staging area for a successful life.
• …We employed checklists to indicate **the level of** teacher support, level of student engagement, and reliance of the equipment and computer programs. Researchers observed and noted student scores and typical peer interactions.
• …In addition, **the level of** performance in the activity is determined by students' beliefs about how well they will perform the activity and the values they attach to the activity.

Step 2: Notice the words immediately preceding and following 'these lexical bundles'. Is there a pattern?

……
……
……
……

Step 3: What do you think the speaker's purpose was in using 'these lexical bundles'?

………
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……
……

RETRIEVAL ACTIVITIES

Activity 1: Fill in the blanks examples taken from COCA
(Neely & Cortes, 2009)

Step 1: In each of the following sentences, a lexical bundle is missing. Using the context of the sentence, decide which bundle should go in the each blank. Choose among the lexical bundles*;*

the effect of	*it is important,*	*one of the,*	*as well as*
as a result	*in response to*	*most of the*	*the number of*
according to the	*in other words*	*part of the*	*be able to*
the rest of	*the importance of*	*there was no*	*the level of*

1. We talk with other adults about _____ education, but when we speak with kids, we often give the impression that school is more a minimum-security prison than the staging area for a successful life.(the importance of)

2. As I looked around the room, the students were compliant and _____ evidence of disruptive or inappropriate behavior. (there was no)

3. I mean, who are you? You hate bloggers. You make fun of Twitter. You don't even have a Facebook page. You're the one who doesn't exist. You're doing this because you're scared to death, like _____ us. (the rest of)

4. Do we learn differently now than we did fifteen or twenty years ago? _____ Schools and Staffing Survey, the 2011-2012 data showed the average age of a United States public educator as 42.4.(according to the)

5. An essential _____ process for beginners involves learning the alphabetic system, that is, letter-sound correspondences and spelling patterns, and learning how to apply this knowledge in their reading.(part of the)

6. To be successful readers of science the student must _____ recognize the many new words he/she may encounter. (be able to)

7. If the popularity of online education continues as anticipated, by 2018, _____ full-time online students will outnumber _____ students enrolled exclusively in traditional seated classes. (the number of)

8. You know that I think it's important for them to learn to be a part of the team or a part of the group. I think in life _____ time you're going to be working with other people.(most of the)

9. The teacher typically did not link the responses of learners. Learners offered a one-on-one response, but mainly _____ what the teacher said. (in response to)

10. She positions herself as the daughter and sister of heroic figures who risked their lives in order to find more opportunity for their family. _____, she herself begins to take on heroic qualities. (as a result)

11. Some students learned how to use presentation programs to paste images and make sounds _____ to use data tables from select websites in order to convey a coherent and cogent message. Although putting together a presentation seemed benign, one student commented that, " While working on the Power Point, it was hard to put every aspect of the tour into a smooth, and understandable presentation. But I was excited to take on the challenge. " (as well as)

12. To examine _____ online research and comprehension instruction, we completed a study with fifth-grade students. The teachers in this study provided 13 direct instruction sessions for students targeting reading comprehension, synthesis, and evaluation of online reading materials. (the effect of)

13. _____ most satisfying aspects of this activity was watching students help other students, regardless of group membership. This type of collaboration helped increase the quality of the finished product and ensured that learning was occurring. (one of the)

14. Teaching online is different from teaching face-to-face. However, in both instances, detailed planning is a must! During this phase _____ that you take the time to determine procedures, break down tasks, and develop a timeline for your course. Start with your basic lesson plans, including learning objectives, and expand on the following items. (it is important)

15. _____ performance in the activity is determined by students' beliefs about how well they will perform the activity. (the level of)

16. This student-directed approach enables students to gain a deeper understanding of the content while strengthening their critical thinking skills and intellectual development_____, students have to listen, analyze, compromise, synthesize ideas, and draw? conclusions in order to solve problems. (in other words)

Activity 2: Rephrasing activity
(Peters & Pauwels, 2015)

Step 1: Rephrase the isolated sentences containing lexical bundles and using the clue in brackets.

1. Some students learned how to use presentation programs to paste images and make sounds. In addition, they learned to use data tables from select websites in order to convey a coherent message. **(as well as)**
   ……
   ……
   ……
2. The four advanced courses are offered online and, through cooperation from the universities where the sponsors teach, the students attend classes together. Each of the sponsors teaches a single course. **(one of the)**
   ……
   ……
   ……
3. Cheng and Furnham (2002) studied three variables (peer relations, self-confidence, and school performance) have an impact on on happiness evaluating high school students. **(the effect of)**
   .....
   .....
   .....
4. Community college students generally attend on a parttime basis given their many responsibilities, frequently work on a full-time basis, and are responsible for their families' financial well-being. Consequently, they spend less time on campus, and lacking knowledge of programs and services. (**as a result**)
   ……
   ……...……
   …….
5. Employers rarely ask to see a portfolio, but, when they do, it should be used as a visual aid by the candidate to answer questions. (**in response to**)
   ……
   ……
   ……
6. Passengers were quantitatively too small to alter the overall working-class character and low-income status of Indian settlers. (**the number of**)
   .....
   .....
   .....
7. It does not create an enjoyable or motivating environment but harms self-efficacy; that is to say, it harms their confidence and what they believe they can accomplish. **(in other words)**
   ……
   ……
   ……...

8. I welcome your feedback on this and future columns. Since the second half of the 20th century, mathematics classrooms have been undergoing major change in terms of curriculum and instruction. **(part of the)**
……
……
……
9. There are principles and concepts to be understood and implemented based on the students' best interests. **(according to the)**
……
……
……
10. The purpose of this study was to investigate the extent to which contextualized spelling is used to support reading in first-grade core reading programs**. (the level of)**
……
……
……
11. Participants who were categorized as unchanged were coded as 0, while the remainder of the participants were coded with the number of 1. **(the rest of)**
……
……
……..
12. Remains of these baths did not exist on the south side of the Pantheon. **(there was no)**
……
……
……..
13. Respondents stated that their tattoos have great significance on reflecting bonds and connections. **(the importance of)**
.....
.....
.....
14. You have to know the word in many ways and you must have the skill of spelling it, too**. (be able to)**
……
……
….....
15. Understanding meanings of words is also crucial for comprehension. **(it is important)**
……
……
……

GENERATIVE ACTIVITIES

Activity 1:Substitution Task
(Salazar, 2014)

Step 1: Replace the underlined expressions in the sentences below with a similar expression from the box.

the effect of	*it is important,*	*one of the,*	*as well as*
as a result	*in response to*	*most of the*	*the number of*
according to the	*in other words*	*part of the*	*be able to*
the rest of	*the importance of*	*there was no*	*the level of*

1. Michelle read aloud something informational each day **in answer to** students'questions and interests.
2. Research has consistently indicated that when students with disabilities participate in WBLEs (e.g., career awareness, work study, paid employment), their postschool outcomes are likely to improve a lot. **Consequently**, it is critical for students with disabilities to have these experiences as part of their high school transition services.
3. Plan readings **quantitatively** students must do to gain a deep understanding.
4. Thus, reading progress data were available to teachers for **many** students at seven measurement points.
5. The students focused on this **section of the** text during their conversations.
6. The choice exercise was repeated for each participant. **That is to say**, each participant was invited to complete two choice exercises with four combinations in each exercise.
7. A specific improvement has been achieved in the country. **Based on the** 2012 results of the PISA exam, Turkey achieved 11 points of improvement in reading
8. To be successful readers of science the student must **have the skill to** recognize the many new words he/she may encounter.
9. It was not too difficult for students to find books, because **in addition to** students and English teachers sharing and recommending books, the librarian conducted book talks in classrooms to provide students with a synopsis of appealing library books.
10. In a study of struggling adult readers, researchers examined **the impact of** rate or speed of processing on reading proficiency.
11. Because these students often experience feelings more intensely, **it is crucial** that they feel supported.
12. Students with disabilities are often faced with numerous challenges as they progress through their school years. **In addition to** disability-related challenges, they may encounter additional difficulties such as lack of social acceptance by their peers.
13. I know you'll expect I should say something **particular of the** slaves; and you will imagine me half a Turk when I don't speak of it with the same horror other Christians have done before me.
14. I told him **the extent of** my fear of flying, and I told him about my dad and my months of grief.
15. The cab of the truck was blue but **the remainder of** its frame was a dark rust color.
16. However, the existence and **significance** of this finding remains unclear. Historically, some have assumed that gynecomastia conferred an increased risk of developing breast cancer.
17. It was reasonable to want everyone to be happy; it was reasonable to -wish that boredom, frustration, and melancholy did **not exist**.

Activity 2: Use the key lexical bundles in a meaningful sentence activity
(Peters & Pauwels, 2015)

Step 1: Make complete sentences using these lexical bundles below:

the effect of	*it is important,*	*one of the,*	*as well as*
as a result	*in response to*	*most of the*	*the number of*
according to the	*in other words*	*part of the*	*be able to*
the rest of	*the importance of*	*there was no*	*the level of*

17. _____
_____*(the rest of)*
18. _____
_____*(the importance of))*
19. _____
_____*(there was no)*
20. _____
_____*(the level of)*

21. _____
_____*(part of the)*
22. _____
_____*(be able to)*
23. _____
_____*(according to the)*
24. _____
_____*(in other words)*

25. _____
_____*(most of the)*
26. _____
_____*(as a result)*

27. _____
_____*(in response to)*

28. _____
_____*(the number of)*

29. _____
_____*(the effect of)*

30. _____
_____*(one of the)*

31. _____
_____*(it is important)*

32. _____
_____*_(as well as)*

Activity 3: Rewriting the paragraph using the key lexical bundles

(Cortes, 2006)

Step 1: These paragraphs have been taken from COCA. Some lexical bundles appeared in these paragraphs but they have been deleted. Please, rewrite the paragraph and add the lexical bundles where you think it fits best to convey the corresponding function.

5. the rest of

After yoga practices, I feel extremely calm and at peace with everything. Even for **(the rest of)** the day I find myself breathing deeper and feeling more calm, rather than stressed as usual, and that is the biggest way it has impacted my life. My favorite aspect of yoga is the fact that it is calming. No matter how awful my day has been or my week, it is the one class I can come into feeling stressed and come out feeling completely relaxed.

6. the importance of

Questioning is the basic feature underlying teaching and one of the most effective strategies for teaching content that influences children's learning. " Elementary teachers use questions more than any other teaching tool " . As teacher candidates learn about (**the importance of)** questioning in their instruction, they often learn to construct different types of questions for different content areas.

7. there was no

But just like the WAF Band, she refused to leave. " (**There was no)** way I was going to allow them to push me out of this band, " Awkerman declared. She stayed and played with the Long Beach Municipal Band for seventeen years until it lost the support of the city and disbanded

8. the level of

We employed checklists to indicate (**the level of**) teacher support, level of student engagement, and reliance of the equipment and computer programs. Researchers observed and noted student scores and typical peer interactions.

9. be able to

The next class, this student's mother and father arrive at the music room door carrying a large, beautifully adorned instrument. I am surprised and nervous, as I do not know this instrument. How will I (**be able to)** explain about this special instrument to my students when I do not know what it is myself? The girl's parents begin to set it up at the front of the class. I quietly, but curiously, go over to ask the name of the instrument. The parents inform me that it is a yangqin, a Chinese dulcimer. The student arrives and sits down at the instrument and plays a beautiful Chinese piece

10. in other words

Build a mobile-enabled website: it's not hard You know a website is a must for your small business. Prospects and customers expect to find you online. But having a website is not enough -- you need one that looks good and works great on mobile devices. More than a third of Americans access websites primarily or solely on a smartphone. When designing your website, think " mobile first. " In April, Google released a new algorithm that boosts mobile-ready websites. (**In other words)**, websites not adapted for mobile appear lower in search results.

11. part of the

However, many of the children's errors were semantically and syntactically correct responses that simply did not follow the model. For example, on the previous " will eat " example, one child responded with " Next these first graders? are going to be eating, " which is a perfectly reasonable semantic and syntactic response to the prompt. However, because it lacked the will + verb structure, it was scored as an error. (**Part of the)** problem was that the children did not always appear to remember the grammatical mode.

12. the effect of

The relationships between sleep and performance have been studied in many different fields including human science, medicine, psychology, education, and business. Sleep-related variables (e.g. sleep deficiency, sleep quality, sleep habits) have been shown to influence performance of students and workers. Therefore, the purpose of this study was to determine **(the effect of)** sleep on academic and job performance. The history of sleep research can be traced back to the century. According to the National Sleep Foundation's Sleep in America Poll, U.S. adults sleep about seven hours every night…

13. one of the

Students need to be prepared to function well in the digital world they live in, and if teachers refrain from implementing technology effectively, their students will likely face problems later in life. Preparing students to be adept with digital resources, however, is only **(one of the)** many reasons for them to use digital storytelling in school. As a result of constant exposure to technology, today's students are extremely tech savvy, and even very young children can manipulate technology.

14. it is important

Unfortunately, some teachers do not use enough digital resources for students to derive the full benefits of technology. One easy way to avoid this problem is by assigning students projects requiring the creation of digital stories. This article discusses why **(it is important)** for teachers to use digital resources and how digital storytelling projects can be used to help students improve in reading and writing.

15. as well as

Change Theory is based on the idea that teachers can change their instructional behaviors and perceptions of self over time, while Concerns Theory focuses on purposeful communication with self **(as well as)** with others about teaching concerns. Ultimately, teachers' meaningful change can not occur without the purposeful communication

16. (the number of)

Due to schedule constraints, there were several days on which the intervention could not be implemented. Therefore, with the end of the school year approaching**, (the number of)** lessons per day and per week increased for all groups. All groups participated in approximately the same amount of groups per day and per week, but increasing lessons per day and week at the end of the intervention was not optimal. A second limitation is the small number of students who participated in this study…

17. in response to)

It is important to approach the evaluation of students' writing skills systematically and thoughtfully. As mentioned above, teachers may consider using a task analysis to identify the important subskills within a broader writing task. For instance, if teaching a student to select responses to complete sentence frames, some of the critical subskills might include pointing to the picture prompt**, (in response to)** a question such as " What will you be writing about today?".

18. (as a result)

…When the men were away at work during the day, the women of the village would monitor each other's behavior. Jamila was a young, secluded, uneducated, unemployed, and unmarried girl who lived with her impoverished, widowed mother**. (As a result)** she was at risk of being approached by higher-status boys in the village. One sent her a love letter, which she could not read, and trinkets that she had someone else return; another boy, Younis, drugged and raped her.

19. (according to the)

By December, the Gulf of Alaska is one of the stormiest places anywhere. **(According to the)** National Weather Service, gale-force winds are present 15 percent of the time during December and January; 20 percent of the time, the sea swells top 17 feet; and in an average year, hurricane-force winds hit two or three times. The sensible approach would have been to wait out the winter in Dutch Harbor.

Activity 4:

Write an argumentative paragraph responding the following two questions: (250 words)

- **"What should / shouldn't people do when they are learning English?"**
- **"What are the advantages of improving your English?"**

Use the target lexical bundles (Nation, 2001)

the effect of	*it is important,*	*one of the,*	*as well as*
as a result	*in response to*	*most of the*	*the number of*
according to the	*in other words*	*part of the*	*be able to*
the rest of	*the importance of*	*there was no*	*the level of*

Good Luck☺

Appendix I Detailed Table for participants

	Pretest			Posttest			Delayed post		
	frequency	**type**	**%**	**frequency**	**type**	**%**	**frequency**	**type**	**%**
Participant 1	3	3	18,8%	6	6	37,5%	0	0	0
Participant 2	0	0	0,0%	14	11	68,8%	2	2	12,5
Participant 3	0	0	0,0%	12	6	37,5%	0	0	0
Participant 4	0	0	0,0%	12	12	75,0%	4	4	25
Participant 5	0	0	0,0%	10	9	56,3%	6	5	31,25
Participant 6	1	1	6,3%	4	4	25,0%	2	2	12,5
Participant 7	0	0	0,0%	11	9	56,3%	6	6	37,5
Participant 8	2	2	12,5%	10	10	62,5%	4	4	25
Participant 9	1	1	6,3%	2	2	12,5%	1	1	6,25
Participant 10	3	3	18,8%	9	7	43,8%	4	4	25
Participant 11	4	4	25%	4	4	25,0%	4	3	18,75
Participant 12	1	1	6,3%	2	2	12,5%	1	1	6,25
Participant 13	1	1	6,3%	0	0	6,3%	0	0	0
Participant 14	1	1	6,3%	2	2	12,5%	3	2	12,5
Participant 15	0	0	0,0%	6	6	37,5%	0	0	0
Participant 16	3	2	12,5%	8	7	43,8%	0	0	0
Participant 17	2	2	12,5%	12	12	75,0%	5	4	25
Participant 18	0	0	0,0%	11	10	62,5%	4	4	25
Participant 19	3	3	18,8%	17	16	100,0%	5	5	31,25
Participant 20	3	3	18,8%	8	8	50,0%	3	3	18,75
Participant 21	1	1	6,3%	3	3	18,8%	5	5	31,25
Participant 22	3	3	18,8%	10	6	37,5%	1	1	6,25
Participant 23	0	0	0,0%	12	10	62,5%	4	4	25
Participant 24	1	1	6,3%	14	10	62,5%	5	5	31,25
Participant 25	0	0	0,0%	3	3	18,8%	4	4	25
Participant 26	0	0	0,0%	13	10	62,5%	3	3	18,75
Participant 27	2	2	12,5%	7	7	43,8%	4	4	25
Participant 28	1	1	6,3%	13	9	56,3%	8	6	37,5
Participant 29	0	0	0,0%	13	9	56,3%	6	4	25
Participant 30	2	1	6,3%	7	6	37,5%	3	3	18,75

ÖZGEÇMİŞ

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Yayınları

- Er, G., & Azap, S. (2013). “The Effect of Cooperative Learning Activities based on Multiple Intelligences Theory on Vocabulary Learning in EFL Classes”, Journal of Kazım Karabekir Education Faculty. (27), 77-98.
- Uçar, S., & Yükselir, C. (2015). "The Effect of Corpus-based Activities on Verb-Noun Collocations in EFL Classes" , TOJET: The Turkish Online Journal of Educational Technology. (14) 2, 195-205.
- Uçar, S., & Yazıcı, Y., (2016). “The Impact of Portfolios on Enhancing Writing Skills in ESP Classes” , Procedia - Social and Behavioral Sciences 232, 226-233.