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AN EXAMINATION OF THE EFFECTIVENESS OF CORPUS USE AS A DATA-DRIVEN LEARNING TOOL IN PROCESS WRITING

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To my beloved family

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BİR VERİ YÖNLENDİRMELİ ÖĞRENME ARACI OLARAK DERLEM KULLANIMI ETKİNLİĞİNİN SÜREÇ ODAKLI YAZMADA İNCELENMESİ

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ÖZ

Bu çalışma, bir veri yönlendirmeli öğrenme aracı olarak derlem kullanımının öğrencilerin yazma performansları üzerindeki etkisini ve derlem kullanımının öğrencilerin yazma sürecine katkısını incelemektedir. Buna ek olarak, bu çalışma Türk İngilizce öğretmenliği bölümünde okuyan öğrencilerin bir veri yönlendirmeli öğrenme aracı olarak derlem kullanımı hakkındaki görüşlerini incelemektedir. Bu çalışmada zayıf deneysel desen kullanılmıştır ve bu çalışmaya Türkiye'de bir devlet üniversitesinde İngilizce öğretmenliği bölümünde okuyan birinci sınıf öğrencileri katılmıştır. Bu bağlamda, öğrencilere bir derlem aracı (COCA) ve onu nasıl kullanacakları tanıtılmış ve sonrasında öğrencilerden tanıtılan derlem aracını kullanarak yazılarını gözden geçirmeleri ve hatalarını düzeltmeleri istenmiştir. Uygulamadan sonra, öğrencilerin yazıları holistik (bütünsel) rubrik kullanılarak puanlanmıştır. Öğrencilerin derlem aracı hakkındaki görüşleri görüşme anketi ile alınmıştır. Bu çalışmada, nicel veriler Wilcoxon sign-rank test ile analiz edilmiştir. Nitel veriler için ise içerik analizi yöntemi kullanılmıştır. Çalışmanın bulguları bir veri yönlendirme aracı olarak derlem kullanımının öğrencilerin yazma performansları üzerinde istatistiksel olarak anlamlı bir etkisi olduğunu göstermiştir. Bunun yanında, çalışmada öğrenciler en çok derlem aracını kelime ve gramer hatalarını düzeltmede kullandıkları bulunmuştur. Ayrıca, öğrenciler yapılan anketin sonunda bir veri yönlendirmeli öğrenme aracı olarak derlem kullanımı hakkında olumlu görüş bildirmişlerdir.

Anahtar Kelimeler : Derlem, Veri yönlendirmeli öğrenme, Süreç-odaklı yazma, Öz-değerlendirme, Akran dönütü

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ABSTRACT

This study aims to explore the effectiveness of corpus use as a Data-driven learning tool in Turkish EFL students' writing performances and how corpus use as a Data-driven learning tool contributes to students' writing processes. In addition, this study also investigates opinions of Turkish EFL students about corpus use as a DDL tool. The pre-experimental design was utilized in this study and freshman students who have been studying at the Department of English Language Teaching at a university which is located in the south part of Turkey were participated in the study. In this vein, the students were introduced one of the corpus tools for the purpose of the study and asked to revise their writings utilizing corpus as a Data-driven learning tool. After the treatment, data were collected through scoring students' writings by using a holistic rubric and analyzing their writings. As for the opinions of students, a written opinion survey was implemented. The Wilcoxon signed-rank test was implemented to analyze quantitative data and content analysis method was utilized to analyzed qualitative data. The findings indicated that corpus use as a DDL tool made a significant difference on students' writing performances. It was also revealed that students mostly corrected their vocabulary and grammar errors utilizing the corpus as a DDL tool. In addition, the written opinion survey explored that students had positive opinions about corpus use as a DDL tool.

Key words : Corpus, Data-driven learning, Process Writing, Self-editing, Peer feedback

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LIST OF ABBREVIATIONS

AMI	Augmented Multi-Party Interaction Corpus
ARCHER	A Representative Corpus of Historical English Registers
AVIATOR	Analysis of Verbal Interaction and Automated Text Retrieval
BAWE	British Academic Written English
BNC	British National Corpus
BoE	Bank of English
CANCODE	The Cambridge and Nottingham Corpus of Discourse in English
CCEC	Collins COBUILD English Course
CIC	Cambridge International Corpus
CLC	Cambridge Learner Corpus
COCA	Corpus for Contemporary American English
CPE	Corpus of Professional English
CPSA	The Corpus of Professional Spoken American English
DDL	Data-Driven Learning
EFL	English as a Foreign Language
ELT	English Language Teaching
ESL	English as a Second Language
ESOL	English for speakers of other languages
FLOB	Freiburg-Brown Corpus
ICE	International Corpus of English
ICLE	International Corpus of Learner English
KTUCALE	Karadeniz Technical University Corpus of Academic

	Learner English
LCIE	The Limerick Corpus of Irish English
LLC	London-Lund Corpus
LLC	London-Lund Corpus
LOB	Lancaster-Oslo/Bergen Corpus of British English
LOCNESS	The Louvain Corpus of Native English Essays
MICASE	The Michigan Corpus of Academic Spoken English
NMMC	Nottingham Multi-Modal Corpus
NSC	Native-Speaker Corpus
SBCSAE	The Santa Barbara Corpus of Spoken American English
SEC	The Lancaster/IBM Spoken English Corpus
USA	United States of America
WSC	The Wellington Corpus of Spoken New Zealand English
WWC	The Wellington Corpus of Written New Zealand English

CHAPTER I

INTRODUCTION

Writing can be defined as the act of expressing and transforming thoughts in a complicated and describable way (Flower, 1979). In that regard, writing is regarded as one of the language skills. Therefore, several approaches to writing have been developed for years. One of the current approaches regards writing as a process. The process writing encourages students to practice active involvement in a language in action (Flower & Hayes, 1981). Besides, Murray (2009, p. 4) expresses that process writing corresponds to the process of discovery and exploration. In process writing, students outline their writings through generating ideas and combining them, put their ideas down on paper, and edit their writings. However, those stages do not have a rigid order; instead, they have a recursive nature. In the process of writings, students actively work on their writings and utilize various techniques to improve their writings and give their final shape.

The basic corpus methodology started to be commonly used in linguistics at the beginning of the twentieth century and the number of corpus studies has increased with the development of technology (McEnery, Xioa & Tono, 2006, p. 4). Along with the linguistic studies, corpus methodology has been applied to language teaching and offers second language learners to discover and work with authentic language (Johns, 1986, 1991a). The notion behind Data-Driven Learning (DDL) enables learners to 'discover' the language and to develop their strategies for discovery learning as well as enables teachers to provide such context for students; that is, learners are supposed to 'learn how to learn' through those strategies (Johns, 1991a). It also aimed at helping learners interact with corpus and become "a linguistic researcher" (John, 2002, p. 108), and therefore, take active part in their learning process by discovering the patterns and meaning of the selected lexical items (Campoy, Furtuno & Valor, 2010, p. 15). This autonomous learning process gives the students

realistic expectations and involves being unique in breaking new ground as a researcher and individual contribution (Leech, 1997, p. 108).

To conclude, second language writing is generally considered to be a challenging skill for EFL learners (Byrne, 1988, p. 4; Nunan, 1999, p. 271; Tolchinski, 2006, p. 84). The writing problems are commonly seen as non-nativelike as well as they arise from lexical and semantic problems (Byrne, 1988, p. 4). In this vein, the application of DDL as one of the approaches to language teaching in writings is considered to have positive effects on improving students' writing processes in the study.

Statement of the Problem

Many studies (Akkoç, 2017, p. 3; Barbieri & Eckhardt, 2007; Belz & Vyatkina, 2005; Crompton, 2005; Çelebi, 2012, p. 7; Ekşi & Aşık, 2016, p. 93; Ersanlı, 2015; Gabrielatos, 2006; Harwood, 2005; Laufer & Waldman, 2011; Özbay; 2015, p. 14; Özcan, 2015, p. 6; Peksoy; 2013, p. 6) revealed that the use of corpus has a significant effect on linguistic studies. It provides considerable data to linguistics for contributions in the field of Second Language Acquisition and an authentic context for foreign learners. Many studies (Akkoç, 2017, p. 3; Belz & Vyatkina, 2005; Crompton, 2005; Çelebi, 2012, p. 7; Ersanlı, 2015; Harwood, 2005; Laufer & Waldman, 2011; Özbay; 2015, p. 14; Özcan, 2015, p. 6) investigated the previously determined linguistic features via corpus or compiled learner corpus to analyze systematic patterns of variation and use. Besides, spoken and written corpus tools and resources have also been benefited to investigate various aspects of the textbooks (Barbieri & Eckhardt, 2007; Ekşi & Aşık, 2016, p. 93; Gabrielatos, 2006; Liu & Liu, 2011; Peksoy; 2013, p. 6) and have been utilized to design assessment (see: Barker, 2014; Taylor & Barker, 2008).

However, its application in language teaching setting has for a long time remained behind such breakthrough (Sinclair, 2004). In other words, the application of corpus tools and resources in the classroom environment has been limited. Yet, after Johns' (1986, 1991a, 1991b) studies on the effectiveness of corpus tools and resources in grammar and vocabulary lessons as well as DDL has been introduced to education context, this has become less true. Various researches have been conducted to understand the nature of corpus use in language teaching (Kennedy & Miceli, 2016), the usefulness and effectiveness of the corpus tools application in the classroom (John, 2001; Belz & Vyatkina, 2008; Breyer, 2009), and how learners utilize corpus tools in self-directed foreign language learning (Gabel, 2010;

Kennedy & Miceli, 2001). Besides, many studies on its application in reading and grammar lessons (Möllering, 2001; Girgin, 2011; Dickinson & Lee, 2009; Benavides, 2015; Chang & Sun, 2009; Liu & Jiang, 2009), vocabulary teaching (see: Thurstun & Candlin, 1998; Ergül, 2014; Shei & Pain, 2010; Daskalovska, 2013; Gordani, 2013; Chan & Liou, 2007; Kaur & Hegelheimer, 2007; Stevens, 1991; Kazaz, 2015; Poole, 2012; Walker, 2011) have also been conducted to understand the potential functions of corpus in language teaching. Additionally, since students are the main subjects of the learning process, their attitudes toward the corpora use in writing, reading and vocabulary learning (Sun, 2007; Yoon & Hirvela, 2004; Smith, 2011) have been explored.

When it comes to corpus use in writing lessons, dictionaries and concordancers were compared to see their potential uses in L2 writing (Lai & Chen, 2013). Many studies have been conducted to find out how corpus tools promote EFL learners to be qualified in writing. The potential functions and influence of corpus technology have been tried to be figured out. In this scope, the influence of corpus technology on L2 writing (Yoon, 2008; Hegelheimer, 2007; Flowerdew, 2003; O'Sullivan & Chambers, 2006; Alshaar & AbuSeileek, 2013; Coniam, 2004) and the influence of corpus use on students' imaginative writing (Kennedy & Miceli, 2010) have been studied. Some studies were also on understanding how the corpus tools help students use specific linguistic patterns in writing (Babanoğlu, 2012; Bolton, Nelson, & Hung, 2002; Yeh, Liou & Li, 2007) and figuring out L2 learners' perception of a concordance tool for academic writing (Sun, 2007). Also, a corpus-based paraphrase tool was developed to help L2 learners to become more qualified in writing (see: Chen et. al., 2013). Besides, corpus tools have been used as an aid tool for learners to correct their mistakes in writing lessons. Corpus tools served as an aid tool for learners to detect their errors in writing (Lee, Jang & Seo, 2009), to edit their academic writing and correct their mistakes (see: Reynolds, 2016), to edit their persistent grammatical errors from their writing (Cowan, Choo & Lee, 2014), to compare teacher-provided feedback with learners' corpus use in correcting their errors from their writings (Crosthwaite, 2017), and to determine the effects of concordancing on the error-correction process in students' essays, students' general writing performance and their attitudes towards corpus (Feng, 2014). However, to the knowledge of the researcher, there are few empirical studies that have been conducted in the EFL context with the aim of examining the effectiveness of the self-editing and peer-feedback in process writing through corpus use as a DDL tool (Lu, Hung & Lu, 2016; Quinn, 2015).

Aim of the Study

This study aims to examine the effectiveness of corpus use as a Data-Driven Learning tool in self-editing and peer-feedback tasks in process writing, how learners make use of the corpus in evaluating their own and one another's writings and opinions of Turkish EFL students about corpus use as a DDL tool in process writing.

The present study aims to address the following research questions:

1. Does the use of corpus as Data-Driven Learning tool improve Turkish EFL learners' writing performance?
    a. Does use of corpus as a Data-Driven Learning tool make any difference in writing scores in self-editing tasks?
    b. Does use of corpus as a Data-Driven Learning tool make any difference in writing scores in peer-feedback tasks?
    c. Does use of corpus as a Data-Driven Learning tool make any difference in writing scores in five traits (organization, content, language use, vocabulary, and mechanics?
2. How does corpus as a Data-Driven Learning tool contribute to process writing?
    a. What kind of errors do students correct using conventional techniques in self-editing tasks?
    b. What kind of errors do students correct using conventional techniques in peer-feedback tasks?
    c. What kind of errors do students correct using corpus as a Data-Driven Learning tool in self-editing tasks?
    d. What kind of errors do students correct using corpus as a Data-Driven Learning tool in peer-feedback tasks?
3. What are Turkish EFL learners' opinions about using corpus as a Data-Driven Learning tool?

Significance of the Study

With the development of technology and its effects on corpora studies, which is expressed as "the marriage of corpora with the computer technology" (McEnery, Xioa & Tono, 2006,

p. 4), researchers have had great opportunity to cover large bodies of language and collate much of language. Thus, corpus studies have become representative of language and the number of corpora and corpora-based studies has increased. Besides the corpora-based studies (Harwood, 2005; Laufer & Waldman, 2011; Özcan, 2015; Çelebi, 2012; Crompton, 2005; Akkoç, 2017; Özbay; 2015; Lu, 2010; Ersanlı, 2015; Belz & Vyatkina, 2005; Barbieri & Eckhardt, 2007; Peksoy; 2013; Ekşi & Aşık, 2016; Gabrielatos, 2006; Liu & Liu, 2011; Barker, 2014; Taylor & Barker, 2008), Johns' (1986, 1991a, 1991b) studies have brought new dimension to that area. He introduced corpus tools to language learning and language learners. Since then, many corpus studies (John, 2001; Belz & Vyatkina, 2008; Breyer, 2009; Gabel, 2010; Kennedy & Miceli, 2001; Kennedy & Miceli, 2016; Möllering, 2001; Girgin, 2011; Dickinson & Lee, 2009; Benavides, 2015; Chang & Sun, 2009; Liu & Jiang, 2009; Thurstun & Candlin, 1998; Ergül, 2014; Shei & Pain, 2010; Daskalovska, 2013; Gordani, 2013; Chan & Liou, 2007; Kaur & Hegelheimer, 2007; Stevens, 1991; Kazaz, 2015; Poole, 2012; Walker, 2011) explored the effects of using corpus tools as a DDL tool in reading, grammar, and vocabulary classes in language learning. In addition, many studies (Chen et. al., 2013; Lee, Jang & Seo, 2009; Reynolds, 2016; Cowan, Choo & Lee, 2014; Crosthwaite, 2017; Feng, 2014; Yoon, 2008; Hegelheimer, 2007; Flowerdew, 2003; O'Sullivan & Chambers, 2006; Alshaar & AbuSeileek, 2013; Coniam, 2004; Kennedy & Miceli, 2010; Babanoğlu, 2012; Bolton, Nelson, & Hung, 2002; Yeh, Liou & Li, 2007) found out the possible use and effects of corpus tools in writing classes. However, this study will contribute to the literature on determining whether Turkish EFL learners can improve their writings through corpus use as a DDL tool in process writing and how learners make use of corpus in evaluating their own and one another's writings. As peer-feedback and self-editing are the crucial elements of process writing (Chaudron, 1984; Zamel, 1985), examining the effectiveness of self-editing and peer-feedback in process writing through corpus use as a DDL tool is believed to contribute to literature. In other words, this study is believed to provide evidence for whether peer-feedback and self-editing through corpus use as a DDL tool is effective in developing learners' writing performance. In addition, this study will provide evidence for how Turkish EFL learners make us of corpus in evaluating their own and one another's writings.

This study is believed to contribute practical use for English Language Teaching programs at Turkish universities. It is not limited to ELT programs; in that, the findings of this study also have a practical use for any English teacher to benefit from corpora in their writing

classes. In addition, the findings of this study are believed to contribute to the practical use for English foreign learners in terms of encouraging them to research, to practice their learning skills regarding its inductive nature and to take responsibility for their learning; and therefore; to become autonomous learners.

Hypothesis of the Study

The present study aims to address the following hypothesis:

1. Corpus use as a Data-Driven Learning tool makes a significant difference in writing scores in self-editing tasks.
2. Corpus use as a Data-Driven Learning tool makes a significant difference in writing scores in peer-fedback tasks.
3. Corpus use as a Data-Driven Learning tool does not make a significant difference in writing scores in the trait of organization.
4. Corpus use as a Data-Driven Learning tool does not make a significant difference in writing scores in the trait of content.
5. Corpus use as a Data-Driven Learning tool makes a significant difference in writing scores in the trait of language use.
6. Corpus use as a Data-Driven Learning tool makes a significant difference in writing scores in the trait of vocabulary.
7. Corpus use as a Data-Driven Learning tool does not make a significant difference in writing scores in the trait of mechanics.

Assumptions of the Study

The following assumptions have been taken into account in this study:

1. All students are assumed to do their best to use the corpus tool introduced.
2. All students are assumed to give proper and effective feedback to each other as it was taught before.
3. All students are assumed to be cautious about their mistakes when doing self-editing in their writings.

4. All students are assumed to be sincere when responding to questions in the written interview.
5. All students are assumed to know how to construct and structure a paragraph.

Limitations of the Study

The following assumptions have been taken into account in this study:

1. The increase in writing scores could result from the learning effect.
2. The increase in writing scores could result from the training effect.
3. The study focused on the writing skills of the learners at the Department of English Language Teaching at Hatay Mustafa Kemal University.
4. The experimental study was applied to freshmen students in the Department of English Language Teaching at Hatay Mustafa Kemal University.
5. The study focused on the use of COCA, a corpus tool in the process of self- editing and peer-feedback.

Definitions

Corpus: Corpus, plural corpora, is the compilation of linguistic data, either as written texts or as a transcription of recorded speech. Its main purpose is to verify a hypothesis about language (Crystal, 1992).

Corpus-based Approach: Corpus-based approach is a process that assumes the validity of linguistic forms and structures derived from linguistic theory with the aim of analyzing the systematic patterns of variation and use for those pre-defined linguistic features (Biber, 2009).

Data-Driven Learning: It refers to a learning process that enables learners to take an active part in their learning process by discovering the patterns and meaning of the selected lexical items (Campoy, Furtuno & Valor, 2010).

Self-editing: Self-editing is a source of corrective feedback and a learner-initiated activity for identifying and correcting errors in their writings (Bitchener & Ferris, 2012).

Peer feedback: Peer feedback is the use of learners as sources of information and

interactants for each other in such a way that learners assume roles and responsibilities … in commenting on and critiquing each other's drafts in both written and oral formats in the process of writing" (Liu & Hansen, 2002, p. 1).

CHAPTER II

REVIEW OF LITERATURE

Introduction

The chapter below presents writing as a process and its writing stages within the context of the constructivist approach to language teaching as well as the place of peer feedback and self-editing in writing as process. In addition, it describes the DDL approach to language teaching. In that regard, the literature discusses the effectiveness of process writing and the application of corpus tools as Data-driven learning tools to process writing.

Writing

Writing can be defined as the combination of a variety of symbols, elements, or statements that can be expressed in language. Since graphic symbols, letters, and a combination of letters form writing, it can be said that writing is an act of forming those symbols. However, it is considered to be more than a symbolic system in the literature. It is one of the means of communication; thus, the symbols come together and give writing the power to express and convey meaning. In that sense, it can be simply defined as expressing what you think. However, Flower (1979) uses the term 'transform' instead of 'express' while defining writing since she believes that writing is not just an act of expressing thoughts, but it is an act of transforming thoughts in a complex but describable way. In that sense, Byrne (1988) broadens the meaning of the term by underlining the terms unity and coherent and defines it as "the organization of sentences into a text, into a coherent whole which is as explicit as possible and complete in itself" (p. 2). Thus, these symbols and sentences are organized in such a way that they build unity and coherence in the product of writing. The unity and coherence of writing products make the writing more effective and powerful. Besides, Tolchinski (2006, p. 84) indicates that writing is not just a means for conveying knowledge

and ideas, but it is also a source of knowledge and ideas; it is not only a problem space but a resource for dealing with language and thought, as well. In this vein, it is expressed that writing is an essential source to have insight into key points in human development (Tolchinski, 2006, p. 84). That's why, even the earliest ancestors had a writing system and writing manuals which were benefited to teach how to write. In other words, writing has been considered to be one of the language skills and tried to be found effective ways to teach writing in schools since past times.

However, writing is a difficult task. Byrne (1988, p. 4-5) categorized the problems related to the difficulty of writing into three categories: psychological, cognitive, and linguistic. From the psychological aspect, the nature of writing makes this skill a solitary activity. The writer is on his/her own in the writing process since the possibility of interaction in writing is too little. From the linguistic aspect, writing requires a certain command of the language for effective communication. It is taught through a set of instructions; that's why, reaching that level or being master in the written form of language takes considerable time. Finally, from the cognitive perspective, in comparison to writing with oral communication, oral communication provides individuals to repeat, backtrack, expand, etc. what they have said while writing is the absence of these facilities. The meaning is supposed to be conveyed with the appropriate sentence structures and by the way the sentences are sequenced coherently since writing is not just the list of sentences sequenced.

Nunan (1999, p. 271) also remarked this challenging process with regard to fluency in writing. He indicates that written works need to be fluent and extended to enable readers to comprehend the meaning and the points mentioned in the writing without any clarification. Thus, competent writing skill is generally acquired at last by both native speakers of the language and foreign/second language learners (Hamp- Lyons & Heasley, 2006, p. 13; Byrne, 1988, p. 4).

In this vein, Torrance and Galbraith (2006, p. 67) stress that mind deals with many functions while writers produce the written product. Writers build thematic coherence of the written product, figure out and retrieve relevant knowledge, determine lexical items related to content, formulate syntactic structure, figure out appropriate register, ensure smooth transition and ties new text into preceding text in a coherent way, identify the keystrokes to form written product on the screen, generate goals and review them in light of what they have learned through writing. In addition, Flower and Hayes (1980) emphasize the various functions of the mind in the production of the text by indicating:

> "The writer must exercise a number of skills and meet a number of demands-more or less all at once. As a dynamic process, writing is the act of dealing with an excessive number of simultaneous demands or constraints. Viewed this way, a writer in the act is a thinker on full-time cognitive overload" (p. 33).

The difficulty and power of writing have fronted researchers to study in this area. Between 1900 and 1970s, the primary focus of writing is on determining prescriptive text features and all products of writing. In this formative context, the procedure and writing rules are clear-cut and writings reflect the prescriptive grammar and current traditional rhetoric (Barnett, 1989; Young, 1978). Textual analysis of writing and experimental studies on the efficacy of a particular teaching technique are the main focuses of researches (Nystrand, 2006, p. 12). However, this formulaic writing system and treating their production as a final draft have been criticized by many researchers in Darmouth Seminar held at Darmouth College in 1966 and at which many academics in English language teaching, linguistics, psychology, and education attended. It was claimed that school writing redundantly consisted of formalist rules and maxims of the sort.

In this new perspective, language has been viewed as an expressive and a cognitive process, and that language was capable of shaping and extending experiences by bringing it "into new relationships with old elements" (Dixon, 1967, p. 9). The focus of this view was also on "personal growth" (Dixon, 1967, p. 4), individual learning, and process of mind (Nystrand, 2006, p. 13). In this vein, Chomsky (1968, p. 103) argued that language is a rule-governed cognitive process and language performance reflected the language competence. That's why; studying language is conducted through investigating the structure of mind as well as analyzing human beings dynamically and longitudinally. In line with this perspective in which the insight of language process and learning were fundamentally shifted, the nature of English Language teaching was re-conceptualized.

Writing as Product

There have been several approaches to teaching writing in second language learning. The product approach to teaching writing, which has been one of the earliest approaches to teaching writing, can be defined as "a traditional approach in which students are encouraged to mimic a model text, usually is presented and analyzed at an early stage" (Gabrielatos, 2002, p.5). The approach focuses on the final product that should be produced in a coherent and error-free way (White, 1988, p. 5; Barnett, 1989). In this approach, teachers provide a variety of writing models and students are supposed to copy and transform those models

(White, 1988, p. 5). In that regard, Steele (1992) states that the approach has four stages to produces a written text.

Firstly, students examine the model text and figure out the features of the target models. Then students study the highlighted structures through controlled practices. After the controlled practices, students organize their ideas following the features of the target text model. In that stage, Steele (1992) noted that the focus is on the organization of the ideas rather than ideas themselves. The last stage is viewed as the end of the writing process. In the last stage, students choose appropriate vocabulary, language structure, and necessary skills to produce the written product (Steele, 1992).

Similarly, Hedge (1988, p. 8) states eight necessary skills in product writing: correct grammar use, a wide range of vocabulary use, punctuation, appropriate use of layout conventions, accurate spelling, a wide range of sentence structures, combining ideas to develop a topic, and developing and organizing clear content.

In that regard, Barnett (1989) argues that when students' writings are treated as their final drafts, then it is emphasized that mechanics and language use are the important components in producing a written text. White (1988, p. 5) also states that the approach is language-focused and underlines the correctness and text model. However, Escholz (1980, p. 25) and Watson (1982) argue that the approach does not actually deal with students' writing problems and students are promoted to view form more essential than content which results in copying specific plan or organization without any creativity. Therefore, Escholz (1980, p. 24) views the approach as "stultifying and inhibiting writers rather than empowering them or liberating them". Sympathizing with counter-arguments to product writing, Murray (2009) indicates that the lack of promoting students to be creative is the main disadvantage of this approach. In this similar vein, Flower and Hayes (1977) argue that the approach is too remote from encouraging students to creative thinking by saying:

> "We still undertake to teach people to write primarily by dissecting and describing a completed piece of writing. The students are (a) exposed to the formal descriptive categories of rhetoric (modes of argument – definition, cause and effect, etc. – and modes of discourse – description, persuasion, etc.) (b) offered good examples (usually professional ones) and bad examples (usually his/her own) and (c) encouraged to absorb the features of a socially approved style, with emphasis on grammar and usage. We help our students analyze the product, but we leave the process of writing up to inspiration" (p. 449).

In other words, learners are limited to copy text models and encouraged to focus on the organization of ideas and the correct language use. However, the criticisms underline restraining students from creative thinking. Regarding the concerns with the product

approach to writing, the focus has been started to change on learners' ideas and learners has been supposed to be initiators of their own writings rather than being responder or mimicker of intention and expressions of other people. (White, 1988, p. 6). Based on promoting learners to take charge of their own writing, a new procedural approach to teach writing have been evolved.

Writing as Process

The History of Process Writing

Keppel (1963) influenced by the new cognitive perspective argued that there was a necessity of education reform based on empirical researches. In relation with the acclaim "education is too important to be left solely to the educator" (Dershimer, 1976, p. 50), it has been argued that the production of written text requires a number of functions of mind (Torrance & Galbraith, 2006, p. 67). However, performing those functions simultaneously are quite challenging for human beings so researchers have given a new perspective to writing as process in literature and tried to understand the complex structure of the writing process regarding the limitations imposed by the structural features of mind (e.g. Applebee, 1986; Braddock, Lloyd-Jones & Schoer, 1963; Emig, 1971; Flower & Hayes, 1981; Rohman & Wlecke, 1964; Young & Becker, 1965).

The empirical research on writing as process has actually started with Emig's (1971) study 'The Composing Process of Twelfth Graders'. However, Emig was not the first researcher who conceptualized writing as process. Few researches were conducted to improve students' writing abilities through guided revision, identifying writing ability of students through collecting their samples on different subjects, conceptualizing pre-writing stage to help students improve the quality of students' writing, and applying some aspects of tagmemic theory describing major lines of inquiry to gain knowledge to rhetorical problems.

Braddock, Lloyd-Jones and Schoer (1963) published the final report of a committee whose aim was basically to revise what was known or not known about how to teach and learn the composition. Old and possible new methods related to ways of improving composition were discussed at the committee and the current situation was evaluated to find out the deficiencies concerning improving composition. The authors of the committee reached a conclusion that traditional and formal grammar was no longer effective for the quality of students' compositions. Instead, they suggested objective tests for evaluation of students' writing

abilities and television and kinescope as a teaching tool. Consequently, five researches were conducted to test their hypotheses. Among the five studies, the two were related to conceptualizing writing as process. One aimed at figuring out the importance of careful grading through criticism and guided revision while the other aimed at the importance of collecting students' sample writings on various topics before evaluating their writing abilities. Regarding the aims to be achieved through guided revision and students' samples collection on different topics, it can be inferred that writing was conceptualized as a process in the studies.

In this similar vein, Rohman and Wlecke (1964) described pre-writing as a separate stage in a process of composing. They suggested a second-play position that allowed students to be creative before composing. Their focus was on the discovery stage of writing and personal growth, and teachers' responsibility of assisting learners in this frame. Accordingly, they came up with the idea of pre-writing activity from which students could benefit in their own writing. However, this study is limited to be offered a complete course in writing, but it can be a supplementary stage in writing.

In addition, Young and Becker (1965) applied some aspects of tagmemic theory describing major lines of inquiry to gain knowledge to rhetorical problems and emphasized students as investigators or perceivers. They came up with a structure for the readers. In that structure, they conceptualized writing as process and identified four stages: introduction, background, argument in which students deal with the statement of the argument and testify their arguments, and conclusion.

Even though those researches defined writing as a process, they were actually isolated and unsupported (Nystrand, 2006, p. 11). Thus, Emig's (1971) study was considered to be a breakthrough in writing as process and played an important role in shifting the focus of writing. Interviewing with participants, she concluded autobiographical explanations of their experiences with writing from her interviews. She also came up with a tentative model that identified the situation in which composition took place and the composing processes. After analyzing the composing process, she suggested ten parts that emerge in a composing process: context, the nature of the stimulus to composing, prewriting activities, planning, starting, composing aloud, reformulation of phrases and sentences, stopping, the contemplation of the written product, and the influence of the teacher on the written product (Emig, 1971). Thus, it can be inferred that the phrase 'composing process' has not referred to the chronological order of the events that occur in composing process; instead, the phrase

has covered conditions and circumstances which affect the composing, and steps. Her study actually sheds light on the composing process and how writers work in the writing process.

Even though Emig (1971) led the way of conducting empirical research on the writing process but her study was limited to clearly define every aspect of the writing process. Her study was void of determining the factors that guide learners to make decisions on their writing process. In this vein, Bitzer (1968) and Vatz (1973) conducted studies to identify the guiding forces and their findings reported that purpose, relationships, exigences, and language played a guidance role in decision making. However, Flower and Hayes (1981) believed that those were not sufficient in decision-making process; therefore, they focused on the writing process itself and since the writer has been the main component of the writing process, they believed that studying writers in action was the best way to construct the theory of process writing. Starting from scratching that point, they conducted a study based on protocol analysis over five years. Writers' notes and manuscripts, and the transcripts of the records enabled researchers to outline four principles of the writing process in detailed. In light of their research, the nature of process writing has been reconceptualized.

Nature of Process Writing

Arapoff (1967) indicates that writing is not "an orthographic symbolization of speech", rather is "a purposeful selection and organization of experiences" (p. 33). In other words, process writing involves determining the purpose, the selection of the facts relevant to the purpose, and the organization of the facts coherently through language (Arapoff, 1967, Flower & Hayes, 1981). In that regard, Murray (2009) explains the nature of process writing:

> "It is the process of discovery through language. It is the process of exploration of what we know and what we feel about what we know through language. It is the process of using language to learn about our world, to evaluate what we learn about our world, to communicate what we learn about our world" (p. 4).

In that regard, writing is considered to require active thought and be worked with language in action (Arapoff, 1967; Flower & Hayes, 1981; Murray, 2009, p. 4). Learners consistently select one word instead of another, make crucial decisions in that process and have a chance to test their words by life rather than by a rule book. They also work with the language to reveal the truth to himself. Thus, there is "a glory in its unfinishedness" (Murray, 2009, p. 4) and learn to think more actively in their progress (Arapoff, 1967; Barnett, 1989; Flower & Hayes, 1981; Murray, 2009, p. 4).

It is undeniable that writing is a demanding and intellectual process (Applebee, 1986;

Arapoff, 1967; Barnett, 1989; Flower & Hayes, 1981; Murray, 2009, p. 3; Odell, 1980). Since students are not expected to do all the tasks at the same time, it is crucial to control the complex process of writing (Arapoff, 1967, Flower & Hayes, 1981). In that regard, Osterholm (1986, p. 119) indicates that a written product is successfully composed through the interaction between the writer, the text, and the reader/teacher. Teachers are supposed to be quiet, listen, and respond to students when it is needed with the aim of encouraging them to improve their writings; therefore, they become readers, and recipients (Murray, 2009, p. 5) while the writer takes the responsibility of transferring their ideas to paper with the aim of being interpreted by someone else (Barnett, 1989).

Stages of Process Writing

It is argued that the best way to understand writing is by putting a set of processes that allow writers to orchestrate or organize writing (Flower & Hayes, 1981). Regarding writing as process emphasizes that writing should be regarded as a series of drafts and endeavors (Rohman & Wlecke, 1964), writers go through various stages to control and manage the complexity of writing. Cooper (1975, p. 113) identifies the stages as in the followings: prewriting gestation, planning the particular piece, starting to write the composition, deciding on word choice, syntax, rhetorical style, and organization, reviewing what has been written and what comes next, tinkering and reformulating, stopping, contemplating the finished product, and revising. However, it is generally regarded that the three stages of process writing are in the following: prewriting, writing, and rewriting (Arapoff, 1967; Barnett, 1989; Flower & Hayes, 1981; Murray, 2009, p. 4; Odell, 1980; Rohman, & Wlecke, 1964).

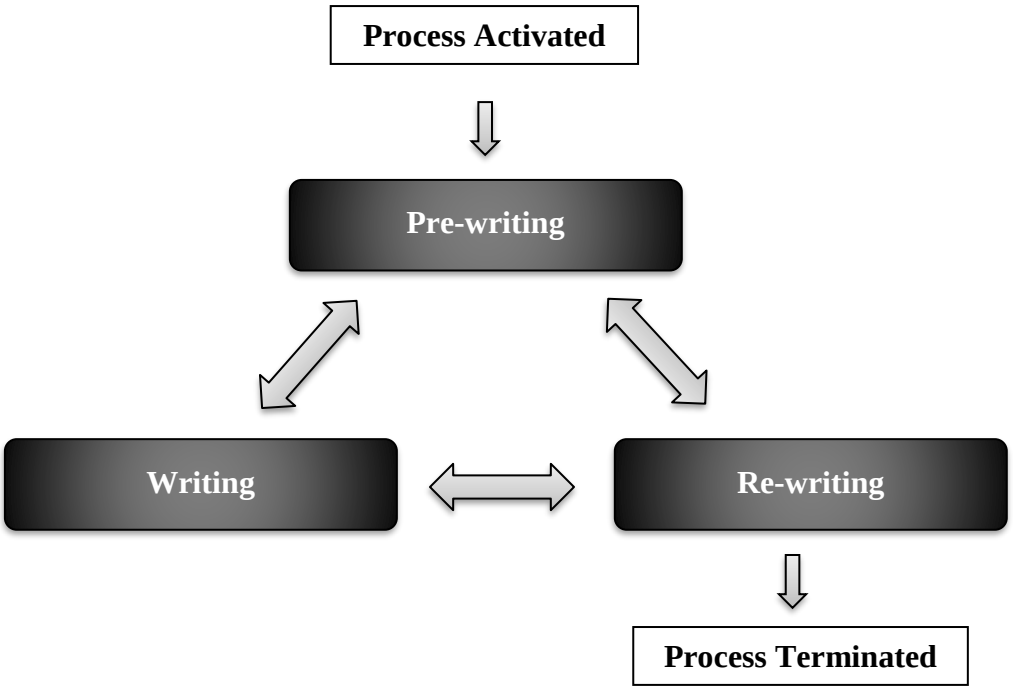


Figure 1. The writing process

Prewriting

Flower and Hayes (1981) define the stage as the process that writers build an internal representation to be made use of in writing. They indicate that the representation does not necessarily need to be built in the language, it can be visual or perceptual code. Prewriting stage also deals with coming up with new relevant ideas, organizing ideas and identifying the reason why the text is written (Myhill et. al., 2008, p. 15). In this vein, Barnett (1989) indicates that prewriting is a starting point for writers since writers determine the topic of composition, the components of the writing, deal with the rhetorical problem, and decide on the useful vocabulary. Rohman and Wlecke (1964) also regard the prewriting stage as an invention device and underlines that writers should figure out the "structures of thinking that lead the writing" (p. 107). Murray (2009, p. 4) also states that writers generally focus on the subject, determine the audience, select a form for the audience. In addition, Chastain (1988, p. 254) emphasizes that prewriting is an essential stage in motivating students.

Writers generate ideas through activating their schema; that is, they retrieve information related to a given topic from long term memory at the prewriting stage (Barnett, 1989; Flower & Hayes, 1981). In other words, writers come up with relevant ideas to elaborate on a given subject. The generating ideas can be built in well-organized and well-developed or

can be fragmented, unconnected, and contradictory (Barnett, 1989; Flower & Hayes, 1981). In this vein, Murray (2009, p. 4) emphasizes a need for research, daydreaming, note-taking, and outlining as a prewriting activity. Raimes (1992) also suggests pre-writing activities for learners to generate ideas relevant to content and structure, brainstorming and outlining to encourage learners, multiple drafts, extensive feedback, and peer responses. In addition, Locke (2015, p. 157-158) offers such prompts as maps, inventories, and visual aids to help writers to access their long-term memory as well as an inquiry as a strategy for generating ideas. While prompts help writers retrieve relevant information from long term memory, the strategy of inquiry starts the writing process by enabling writers to identify gaps in their existing knowledge which triggers writers' curiosity (Locke, 2015, p. 158).

Once the relevant ideas are generated, writers group the ideas and form new concepts; that is, writers give meaning to fragmented and unconnected ideas by structuring them (Barnett, 1989; Flower & Hayes, 1981). That process also enables writers to identify categories and generate relevant subordinate ideas to structure the writing and elaborate on the main subject well (Flower & Hayes, 1981). Once, writers search for subordinate ideas, they still need to order the ideas to give a meaning to the written product. The first and last topics need to be identified as well as important ideas and presentation patterns are supposed to be determined in a written product. In that sense, Locke (2015, p. 159) suggests graphic organizers as an effective way of organizing ideas. He argues that even either writers organize their ideas in chronological order or in a way of compare and contrast by making use of various graphic organizers, they eventually get benefits in terms of organizing and promoting new ideas.

However, it should not be misunderstood that the organizing process is just the act of ordering the generating ideas. Since the organization of the writing is strongly affected by all the decisions and plans at all level, it should be taken into consideration that those decisions and plans are made to reach the audience. In other words, there are major goals behind all the decisions and plans for reaching the audience, and the organizing and generating ideas processes are guided by those goals (Flower & Hayes, 1981).

Thus, Flower and Hayes (1981) identified goal-setting as another component of the prewriting stage. Those goals are set by writers themselves and they can be both procedural which is for ensuring production of the text is successful and substantive which is for adopting the text in the accordance with audience and purpose (Flower & Hayes, 1981; Locke, 2015, p. 159). Therefore, those goals are created relevant to the main subject and created to spot on the reason why the points are related and elaborated in the target direction.

Besides, the goals can be drawn from long-term memory, but most writers generate, improve, and review their goals in the process for generating ideas and organizing. Thus, the goal-setting process enables writers to generate ideas, but generating ideas also leads writers to set new and more complex goals to be integrated into the content and purpose (Flower & Hayes, 1981). In this similar vein, Schunk and Swartz (1993) indicate the effectiveness of process goals is doubled with feedback given on process. Their research findings indicated that process goals with feedback improve writing, learners who believe they learn helpful strategies may feel efficient and motivated to improve their writing, and process feedback along with goals can fulfill that function.

Writing

Once writers outline the structure of the written product, they write their first drafts (Barnett, 1989; Flower & Hayes, 1981). The process is then "the act of producing the first drafts" (Murray, 2009, p. 4), Flower and Hayes (1981) also prefer to call the stage as an act of translation since it includes the transformation of imagery or kinetic sensations into the written language. Even when the ideas are represented in the form of words, the burden is still huge for writers since they need to have a certain command of written language to handle the translation process. To be more specific, writers are supposed to choose appropriate words, spell them correctly, integrate them to make suitable and correctly punctuated sentences, and build paragraphs by incorporating sentences (Flower & Hayes, 1981; Locke, 2015).

Even though structuring the written product by putting the representations into the written language is the core act of that stage, it may not enough to convey meaning in coherence and fluent way. Writers are supposed to link text sections cohesively and sequence those sections coherently to build text (Flower & Hayes, 1981; Locke, 2015, p. 161). While building the text, each of the text sections has its own layout conventions and rules related to content. In that regard, Locke (2015, p. 161-162) offers two strategies in order to overcome that overwhelming process. One way of making that stage easier is using writing frames. Writing frames provide writers a skeleton outline for various types of writing; thus, writers relatively relieve the burden of certain structural demands and are able to focus on more syntax. Prioritizing is the other strategy of easing the huge burden of the writing stage. That strategy suggests that writers do not have to focus on all demands of the stage at the same time. In other words, writers can apply the skills needed one by one (Locke, 2015, p. 161).

Rewriting

Flower and Hayes (1981) define the stage as "a conscious process in to further translating or with an eye to systematically evaluating and/or revising the text" (p. 374). In that regard, Murray (2009) also indicates "Rewriting is reconsideration of subject, form, and audience. It is searching, rethinking, redesigning, rewriting, and finally, line-by-line editing, the demanding, satisfying process of making each word right" (p. 4). Flower and Hayes (1981) indicate that students either evaluate or revise their first drafts. They argue that students reconsider the decisions and choices in the first drafts by revising or evaluating their writings and they also add that revising or evaluating can occur at any time in the whole writing process.

Locke (2015, p. 158) also offers self-regulation as a strategy. He argues that writers can benefit from self-regulation which enables writers to monitor themselves and evaluate their writers in terms of whether they manage to achieve the determined goals in the eye of readers. In this similar vein, Locke (2015, p. 163) offers a few suggestions to foster writers' evaluating skills. He indicates that the use of teacher modeling and demonstration, teacher and peer response, exemplary text, and grading scales or rubrics may help writers to improve their evaluating skills.

In that regard, it is emphasized that the three stages of process writing have a hierarchical and recursive system; therefore, they have not a rigid order unlike ones in a linear system which means that a stage can occur at any time, be included any other stages in a hierarchical system, or embedded within any other instance of itself (Flower & Hayes, 1981; Hyland, 2003; Locke, 2015, p. 154). For instance, planning can be included in other processes such as generating ideas, organizing, etc. as well as ideas can be generated while evaluating writing. Thereby, those writing processes can be seen as writers' toolkit (Flower & Hayes, 1981; Locke, 2015, p. 154).

Using one tool may lead writers to use another one, as well. As was mentioned before, generating ideas can be embedded within the evaluation process since evaluating writing can lead writers to come up with new ideas. Also, the act of generating ideas creates a need for evaluation (Flower & Hayes, 1981). In other words, writers evaluate the potential ideas regarding some criteria such as the degree of relevance, the degree of appropriateness to the aim and so on. In that sense, Hyland (2003) indicates that writers can move backward or forward to any processes at any time such as returning to the library to collect more data, revising the plan to generate new ideas, or rewriting their text to become more readable after

feedback. In this vein, Flower and Hayes (1981) emphasize that the flexible nature of process writing gives power to the system and it can be considered as thinking processes. However, Flower (1994, p. 31) states that the model should integrate social factors more centrally apart from describing what writers go through in each stage of process writing in detailed and indicates that mind should not be isolated from the social process since individuals' minds are shaped by such elements as public statements, social conventions, or interpersonal events, as well.

In parallel, the constructivist approach indicates that learning occurs through constructing our senses by adapting or changing old ideas with new ones (Lowenthal & Muth, 2008, p. 4). In that regard, von Glasersfeld (1989) emphasize that the basic premise of constructivism is that "knowledge is not passively received but is actively built up by the cognizing subject" and "the function of cognition is adaptive and serves in the organization of the experimental world rather than in the discovery of ontological reality" (p. 162). It is actually parallel to the nature of process writing regarding that it allows students to discover the word through active thought and working on language in action, and underline respecting students for their search for truth rather than for their product or their grade (Murray, 2009, p. 4-5). In addition, Lowenthal and Muth (2008, p. 4) indicate that learning in the constructivist approach should be student-centered and the focus in on authentic context, discovery learning, group projects and discussion, and authentic assessment. In other words, the constructivist approach to language teaching underlines social interaction and collaboration in an authentic context. In addition, the process-oriented approach offers students to work in collaboration through the understanding of the interaction among writer, text, and reader (Osterholm, 1986, p. 119), eliciting the ideas by group discussions, designing posters, peer-editing, etc. In that regard, Nunan (1991) indicates that the process writing approach encourages students to build cooperation among them.

It can be summarized that process writing has been regarded a method (Applebee, 1986; Arapoff, 1967; Flower & Hayes, 1981) that promotes students' to analyze and organize ideas, build cooperation among students (Nunan, 1991), give a chance to manage and control writing (Brown, 2001), and provide an opportunity to do various activities (Onozawa, 2010). It also promotes L2 writers to improve their abilities to plan, define a rhetorical problem, and evaluate solutions (Flower & Hayes, 1981; Hyland, 2003). In addition, in his study of process writing, Barnett (1989) revealed that students improved their cognitive skills of reasoning and logical thinking in the process of writing. In this similar vein, Arapoff (1967)

found out that students raised awareness that grammar and semantic were an equally essential part of coherent writing.

Feedback in Writing

Feedback is generally considered to be essential in developing second language learners' writing skills (Beach & Friedrich, 2006; Hyland, 2003; Hyland & Hyland, 2006; Ferris, 2002). It primarily aims at developing learners' writing skills and promoting and consolidating them to learning (Hyland, 2003). Most traditional approaches gave importance to accuracy and correct form for essays, paragraphs, and sentences under the influence of behavioral psychology and structural linguistics. Thus, accuracy in learners' finished work and attention to grammar were the main focuses in providing feedback (Ferris, 2002).

However, in the 1970s, the major paradigm has been shifted from summative feedback to formative feedback. Therefore, English-speaking practitioners and theorists began to give attention to writers themselves and the process they have gone through in constructing texts instead of correct forms and accuracy (Ferris, 2002). The new paradigm has emphasized that text shaped and polished with topics and decisions chosen by writers themselves are the natural consequence of an effective process, and teachers and learners have been promoted to discover ideas, drafting, revising, working collaboratively, and sharing ideas (Ferris, 2002). In such a process-based and learner-centered learning environment, feedback is regarded as a crucial developmental tool for learners to improve their writing abilities (Hyland & Hyland, 2006).

In this vein, Truscott and Hsu (2008) collected data from 47 EFL students to explore the effectiveness of feedback. In their study, errors of one group were underlined while errors of other group were not receiving any feedback. The findings indicated that there were significant differences between the group who received feedback and the one who did not and suggested that feedback has been effective for students' writing skills. Investigating the effects of feedback on sixty-two second language learners through comparing the groups who received feedback with the groups which did not receive feedback, Van Beuningen (2010) also supports the argument in her research. She reached the conclusion that students showed progress in their accuracy when receiving corrective feedback.

Even though early researches on written feedback revealed that the written comments had often poor quality and were vague, inconsistent, authoritarian, global, directive, and generally concerned with errors (Connors & Lunsford, 1993; Knoblauch & Brannon, 1981;

Smith, 1997; Straub, 1996), a number of recent researches (e.g. Bitchener, Young & Cameron, 2005; Bitchener & Knoch, 2010; Chandler, 2003; Ellis et al., 2008; Ferris, 2006; Ferris, 2012; Sheen, 2007; Truscott & Hsu, 2008; Van Beuningen, 2010) have been conducted on feedback practices and found out that feedback has played an efficient role in improving learners' writing skills.

Investigating the effectiveness of feedback on writing, Truscott (1996, 2004) claimed that grammar correction was not effective and might harm learners' fluency and overall writing quality. In a direct contradiction to his argument, Ferris (1997) stated when error correction was done properly, it was effective in improving learners' writing. Many researches support her claim. Conducting a longitudinal study on 53 adult ESL students, Bitchener, Young, and Cameron (2005) explored that student's accuracy in the use of articles and past simple tense increased when they received feedback. Ferris (2006) also explored the effectiveness of feedback on students' grammar errors based on the data collected from 92 ESL students. In her study, she categorized 15 errors and the findings indicated that students had corrected most of their errors, especially their verb errors when they received feedback. In parallel to those findings, Ellis et al. (2008) explored that students were able to improve their accuracy in the use of articles when they received feedback.

Even though the number of studies that focused on form in feedback can be increased, such written feedback concerned with errors are discouraging and do not promote learners to improve their overall writings (Fazio, 2001; Kepner, 1991; Polio, Fleck, & Leder, 1998; Robb, Ross & Shortreed, 1986; Sheppard, 1992). It should be noted that feedback should focus on both form and content; that is, feedback given to learners should also be concerned with their ideas and organization (Conrad & Goldstein, 1999; Ferris, 1997). In this vein, Leki (1990) argues that questions and comments related to the content of learners' writing create a dialogue between learners and teachers and indicates that learners clearly understand the current quality of their writing and what they should do to make them better.

Studying the relationship between revision and types of written comment, Ferris' (1997) results supported the idea. He explored that English language learners preferred marginal notes and asked for clarification and comments on grammar when they received feedback. Similarly, Hedgcock & Lefkowitz (1994, 1996) revealed that learners preferred feedback on content and ideas in their writings. Bardine, Bardine and Deegan (2000) obtained similar results in their study; that is, high school learners indicated that teachers had better elaborate on comments by explaining their comments and asking open-ended questions. These results

are also in agreement with Simpson's (2006) findings which showed that English as a foreign language (EFL) students were more motivated when they received feedback on both content and form.

In addition, a variety of research has been conducted to compare the effectiveness of indirect feedback with direct feedback; however, the findings have been conflicting. Ferris and Roberts (2001) studied the effectiveness of direct and indirect feedback on English as a second language (ESL) learners' writing abilities and explored that there was no significant difference between the direct feedback group whose errors were underlined and coded and indirect feedback group whose errors were underlined but not coded. These results show a similarity to the findings of Robb et al. (1986). Investigating the effects of indirect and direct feedback practices, they found out that there were no significant differences between the two groups.

However, Chandler's (2003) two studies on the effects of feedback for revision of ESL students' texts indicated that direct feedback was more effective compared to indirect feedback. Similarly, collecting data from 92 ESL students through a semester to investigate how students utilize different kinds of feedback, Ferris (2006) revealed that direct feedback was more consistent and effective than indirect feedback. On the other hand, Lalande (1982) found that learners who received indirect feedback reduced their errors over time when compared with the learners who received direct feedback. Investigating the effectiveness of direct and indirect feedback on EFL intermediate learners' composing skills, Jamalinesari et al. (2015) also found out that indirect feedback improved learners writing skills in comparison with direct feedback. Similarly, Baleghizadeh and Dadashi (2011) observed whether indirect feedback on junior high school students' spelling accuracy in English was promotive when compared with direct feedback. They revealed that indirect feedback promoted students to correct their spelling errors. In a more recent study, Ghandi and Maghsoudi (2014) investigated the effects of direct and indirect feedback on EFL students' writing abilities, as well. When compared the group who received direct feedback with the other who received direct feedback, it was found out that the group who received indirect feedback significantly outperformed the group who received direct feedback.

Even though it is difficult to draw a conclusion from those researches, it is highly suggested that feedback should be descriptive and reader-based which is more indirect and facilitative; therefore, learners are promoted to self-assess, reflect on their writing, involve in guided learning, improve their problem-solving skills, and become more independent and active in

their use of feedback (Arndt, 1993; Beach & Friedrich, 2006; Bates et. al., 1993; Elbow, 1981; Hyland, 2001a; Johnston, 1993; Saito, 1994).

It seems that teacher-written feedback is at the center in most L2 writing classes and teachers take giving feedback as to their duty in order to provide comments to students' writings as readers, encourage them to improve their writing skills and justify the reason why they have given those grades (Hyland, 2003). Researches on teacher written feedback also show that learners take account of teacher written feedback more than other alternative forms (see: Radecki & Swales, 1988; Leki, 1991; Enginarlar, 1993; Saito, 1994; Zhang, 1995). However, it is possible that learners can ignore or misunderstand comments (Ferris, 1997; Condrad & Goldstein, 1999), do not figure out how to make revision even though they understand comments (Conrad & Goldstein, 1999; Ferris, 1997), or simply delete the problematic part and avoid using it later on in their writing (Hyland, 1998).

Besides, researches cannot precisely determine whether there is a direct relationship between teacher written feedback and revision (Goldstein, 2001). However, it has been suggested that teachers should take into consideration learners' backgrounds, what they need and prefer, and the relationship and ongoing dialogue between them when they give feedback to their writings (Ferris, et. al., 1997; Hyland, 1998; 2001b). It should be admitted that such a kind of feedback procedure can be overwhelming for teachers. Another issue for teacher written feedback is ownership of writing; that is, learners may feel that their writings are stolen from them by the comments of teachers (Hyland & Hyland, 2006). In this vein, Hyland (2001a) argues that teachers may surpass students' ideas when they give feedback and become the owner of both writing and revision process; therefore, jeopardize the independence and active involvement of learners in the writing process. Regarding the issues related to teacher written feedback mentioned above, researches have shown a tendency to implement alternative forms on feedback apart from teacher written feedback.

Peer Feedback

Peer feedback is considered to support writers significantly in the drafting and redrafting processes (Hyland & Hyland, 2006). Even though teacher-written feedback seems to play a central role in giving feedback to students' writing and researches show that learners prefer teacher feedback rather than peer feedback (e.g. Nelson & Carson, 1998; Zhang, 1995; Tsui & Ng, 2000; Sengupta, 1998), peer feedback has actually crucial effects on learners. One reason for learner preference may be that learners seem their teacher as a trustable expert

and believe their peers may not be knowledgeable enough. In that vein, Zhao's (2010) study on learners' uses and understandings of peer and teacher feedback found out that learners tended more to apply the feedbacks given by teachers compared to peer feedback. However, the data from interviews also indicated that learners passively accepted teacher feedback without understanding its value and significance. Thus, he suggests teachers and learners give enough account to peer feedback. Regarding that teacher and peer feedback do not have to mutually exclusive, Jacobs et al. (1998) argue that such studies should not lead teachers because of their frame of research questions which ask learners to choose between teacher and peer feedback. In that vein, he implemented a questionnaire to 121 second language learners and the findings indicated that students mostly wanted peer feedback together with teacher feedback. Those findings are consistent with Tsui and Ng's (2000) study of secondary students' uses and attitudes towards peer feedback. The study revealed that secondary students considered the two feedback kinds as equal and complete each other.

In the light of recent researches which have shown that peer feedback has positive effects on learners and although teacher written feedback seems at the center in writing classes, the feedback has been used in English as a second or foreign language writing classes (Zhao, 2010). In that vein, Richer (1992) conducted an experimental study on 87 first-year college students and investigated the effects of teacher and peer feedback on their writing proficiency. The findings revealed that peer feedback was more effective in improving their writing skills. Lin et al. (2001) got a similar result in their study which revealed that specific and critical peer feedback helped learners improve their writing skills. Those findings are in line with Plutsky and Wilson's (2004) study of the comparison with the teacher and peer feedback. The findings of their study showed that peer feedback encouraged learners to become more proficient writers. The results of Diab's (2009) study on the effect of peer feedback on L2 writing also showed consistency with those researches. The findings obtained from 50 EFL freshmen students indicated that peer feedback helped learners improve their writings and revealed that peer feedback encouraged learners to correct their rule-based language errors in their revised drafts. In also emphasized the essentiality of collaborative learning in second language learning. On the other hand, comparing the effects of peer review with teacher feedback, Ekşi (2012) found out that the performance of the group who received peer review and the other receiving teacher feedback were similar. Still, the study underlined that the group receiving peer review increased their writing performance with deep-level changes.

Besides, on the contrary of teacher written feedback in which learners play a passive role by just editing their writings in accordance with feedback given, learners are actively involved in feedback and writing process in peer feedback; therefore, learners have more control and autonomy over their writing process (Mendoca & Johnston, 1994). In that regard, comparing peer and teacher feedback in a Chinese EFL writing class, Yang, Badger, and Yu (2006) revealed that peer feedback was highly linked with learner autonomy, even in such cultures where teacher authority is considered to be significant.

Furthermore, peer feedback provides learners more authentic context since they become the audience at the same time when giving feedback to their peers (Caulk, 1994; Freedman & Sperling, 1985; Mittan, 1989). In that sense, it is argued that learners are encouraged to increase their abilities to evaluate their own writings since peer feedback helps them build a sense of readership and create evaluative questions that they apply their own writings (Stoddard & MacArthur, 1993; Cheng & Warren, 1996). Maarof et al. (2011) support such arguments by explaining that learners learn a lot when they critically evaluate their peers' writing drafts and become more aware of the things which make writings more successful and effective. Learners, then, apply what they have learned through peer feedback to their writings.

In addition, it is found out that when learners evaluate their peers' writings, they also witness the similar difficulties they have gone through in their writing process; therefore, peer feedback may reduce their anxiety and make learners more autonomy and self-confidence (Chaudron, 1984; Cotterall & Cohen, 2003; Curtis, 2001). In that regard, studying the effects of peer feedback on the anxiety of Turkish prospective EFL teachers, Gökçe and Derin (2007) revealed that peer feedback reduced their anxiety and helped them gain a different perspective on their writings. Similarly, learners' interaction in peer feedback is considered to help them improve their social and affective skills (Guerrero & Villamil, 1994; Hyland, 2000).

Self-Editing

Learners can also make their own revision without receiving any feedback from peers or teachers. All kinds of feedback actually aim to encourage learners to become more independent learners, and therefore, revise their own writing critically and make changes in their own processes and written products (Hyland & Hyland, 2006). Self-editing is efficient in accomplishing that aim. In that regard, Bitchener and Ferris (2012) consider the

competence of self-editing as the ultimate goal in providing feedback. Therefore, it can be indicated that learners can be critical readers and reviewers of their own writings (Hyland &Hyland, 2006). In that regard, Brinko (1993) emphasizes the importance of self-editing along with peer feedback and teacher feedback in writing and indicates that self-editing makes feedback more effective. His statement is in consistent with the study of McCarthy, Meier, and Rinderer (1985) on the relationship between self-evaluation and the quality of written products. They revealed that writers' evaluations of their own written products greatly contributed to the overall quality of their own writings.

The study of Ross, Rolheiser, and Hogaboam-Gray (1999) on the effects of self-evaluation on learners' writing supports the argument. They trained 148 learners in evaluating their own works over 8 weeks and found out that the overall quality of learners' written products was improved, especially learners' accuracy was significantly improved in their self-evaluations. Similarly, Polio, Fleck, and Leder (1998) investigated the effects of self-editing by comparing the performance of two groups, one of which had extra time for self-editing. The study found out that the group with extra time for self-editing outperformed better in improving their grammatical precision in their writing. Birjandi and Tamjid (2011) also compared teacher provided feedback, peer feedback, and self-editing by conducting an experimental study over a semester on 157 intermediate students and explored that learners practicing self-editing and peer feedback outperformed in scores and significantly improved their writings.

In addition, in his qualitative research on 24 Japanese university students, Suzuki (2008) compared the performances self-editing and peer feedback. The study showed that students were benefited from peer feedback in negotiation while they utilized self-editing in text changes. In other words, they focused on correcting word choice and grammar errors in the self-editing process. Even though those researches have shown that learners are utilized from self-editing in local errors, it is stated that the revision which concerns substantive or global aspects of writing more likely helps learners develop their writings (Flower & Hayes, 1981; Faigley & Witte, 1981; Zamel, 1985).

Learners may not tend to improve their self-editing competences since they may not be confident enough in language use. Studies (e.g. Ferris & Roberts, 2001; Rennie, 2000) which investigated students' opinions about the importance of grammar feedback revealed that students believed they have serious problems with grammar and their grammar problems significantly affected their writings; therefore, they needed to get assistance from their

teachers to develop their writings skills. Their thoughts of not being able to find and correct their own mistakes seriously were believed to damage improving their self-editing skills. Ferris (2002) indicates that a negative situation can be overcome with various strategies. Therefore, students need to be aware of the essentiality of global factors along with local ones in their revision process (Ferris, 2002; Hyland & Hyland, 2006). Ferris (2002) also suggests additional resources for learners to help learners to edit their writings.

Self-editing is also identified as a critical step in grammar development along with L2 writing since it makes easier to acquire process and promotes learner autonomy (Cresswell, 2000; Fathman & Whalley, 1990; Suzuki, 2008). Regarding that autonomous learners are the ones who "take responsibility and make informed choices" (Kupetz & Zeigenmeyer, 2006, p. 63), self-editing gives learners control over their writing, encourages them to take responsibility of revising the content and language of their writings, and to decide on the parts that is needed to be edited. It also promotes reader-based prose (Chandrasegaran, 1989), which provides an atmosphere at which writers and readers share the language and context since learners become the readers of their own writers.

In comparison with the teacher provided feedback, learners may abandon or simplify the pointed ideas needed to be reorganized because of the lack of theirs linguistic resources since the pointed ideas in feedback provided by teachers may not be wholly recognizable (Ferris, 2002; Hyland & Hyland, 2006). However, like peer feedback, self-editing reduces the possibility of blocking learners to generate ideas, allows them to determine their problems on their own in light with their own intentions, and encourages them to move forward in their writing process (Chandrasegaran, 1989). Besides, while learners play a passive role in teacher provided feedback, they have an active role in their writing process by focusing on critical items in their writings and become more independent (Chandrasegaran, 1989; Cresswell, 2000; Fathman & Whalley, 1990; Suzuki, 2008).

Corpus Linguistics

Corpus is actually rooted in naturally occurring language from the modern linguistic perspective. In that aspect, the term 'corpus' can be defined as "collection of sample texts, written or spoken, in machine-readable form which may annotate with various forms of linguistic information" (McEnery, Xioa, & Tono, 2006, p. 4). Moreover, Hunston (2002, p. 2) defines it as organized or compiled linguistic data collection, written or spoken, to give information about a specific pattern of a language or present some varieties of a language.

In that vein, Leech (1992) emphasized the importance of representativeness in his definition of corpora. He indicates that "It should be added that computer corpora are rarely haphazard collections of textual materials: they are generally assembled with the particular purposes in mind and are often assembled to (informally speaking) representative of some language or text type" (p. 116). Considering the fact that texts are compiled by organizing and collecting real language, it can be indicated that the corpus covers machine readable and authentic texts. Regarding the definitions, there is a consensus that the corpus represents a particular language or language variety (McEnery, Xioa, & Tono, 2006, p. 4).

Corpus linguistics attempts to interpret phenomena in a large collection of texts through a detailed search for linguistic items across large variety and amounts of texts (McCarthy & O'Keeffe, 2010, p. 3). In this respect, the findings from the corpus search can be a sample of the particular language or language variety and generalized to the target language or language variety in order to be representative of that language. Therefore, the corpus should have a variety of genres so as to generalize the findings based on the context. Hunston (2002, p. 30) adds another criterion; that is, the corpus needs to be updated over time in order to represent the language or language variety regarding the fact that language is a living organism. Otherwise, the corpus is indispensable to become unrepresentative.

Besides corpus representativeness, corpus balance is another crucial feature for acceptable corpus and corpus-based studies. Actually, by indicating that corpus covers a wide variety of text types or categories, it is also emphasized its other feature of balance. In this respect, Atkins et al. (1992, p. 6) indicate that an acceptable balanced corpus provides manageable and propositional samples of the language or language variety. Accordingly, it can be stated that corpus representativeness and balance are closely linked to sampling. Since it is highly challenging and almost impossible to define the whole natural language, it is better to sample it from a much larger population. As for a representative sample, it is suggested to describe the sample unit and the boundaries of the population (McEnery, Xioa, & Tono, 2006, p. 19). In short, corpus representativeness, corpus balance, and sampling are closely associated with each other and the findings collected from a corpus search are sampled to be representative of a particular language or language variety (McEnery, Xioa, & Tono, 2006, p. 4).

History of Corpus Use

The term 'Corpus' was first used for a nonlinguistic collection 'Corpus Juris Civilis' which was a compilation of Roman laws and legal principles in the 6th century (Francis, 1992, p.

17, cited in Svartvik, 1992, p. 17) and referred to various other nonlinguistic collections like anthologies. However, by emphasizing the importance of the purpose of collections, Francis (1982, p. 7, cited in Svartvik, 1992, p. 17) defines the term corpus as "a collection of texts assumed to be representative of a given language, dialects, or other subset of a language, to be used for linguistic analysis". Considering the fact that it consists of hard Latin words in alphabetical order and accompanied by Latin synonyms or the equivalent in Anglo-Saxon, Latin Corpus Glossary compiled in the 8th century can be considered to be the first collection closer to the linguistic corpus (Starnes & Noyes, 1991, p. 197).

Even though the term appeared in the 1980s, corpora-based studies dated back to the pre-Chomskyan period when researchers used paper slips in storing data. However, paper-based corpora were severely criticized in the late 1950s since it was almost impossible to cover large bodies of language with paper slips, and human eyes and hands and thereby, it was void of being exhaustive, replicable, and representative of the language (McEnery, Xioa, & Tono, 2006, p. 4; Kennedy, 1998, p. 5). In other words, researchers were restricted in studying with small corpora and prone to make errors by searching by hand and consequently, the interest on corpus studies were lost (Kennedy, 1998, p. 5). Still, two major studies were worth mentioning as the examples of the corpus on paper slips (McCarthy & O'Keeffe, 2010, p. 4). As a result of the efforts by studying with endless paper slips to compile the samples used between 1560 and 1660, the first comprehensive dictionary of English was published in 1755 by Dr. Samuel Johnson. And, Oxford English Dictionaries were compiled as a result of covering more than three million slips on word usage by organizing them into meaningful texts.

The development of technology and computers with processing power has actually overcome the deficiencies of the corpus on slips of paper; consequently, a new era in corpus analysis has begun (McEnery, Xioa, & Tono, 2006, p. 4; Tognini-Bonelli, 2010, p. 15). In contrast to index cards and dictionary slips, the powerful computers offer massive storage; therefore, it enables massive corpora to be compiled (McCarthy & O'Keeffe, 2010, p. 6; McEnery, Xioa, & Tono, 2006, p. 4). In other words, since it is able to collate and analyze much of language, it can be said that it has become representative of the language. Furthermore, computers also give the opportunity to denote specific words, phrases, or whole chunks in context and the linguistic items can be denoted in different ways such as the things they collocate with, their typical grammar pattern, etc. (McEnery, Xioa, & Tono, 2006, p. 4). Regarding its incredible speed, it saves time for researchers in handling a huge

amount of compiled data (McEnery, Xioa, & Tono, 2006, p. 4). Apart from its speed, it offers great statistical reliability and accountability in analyzing the linguistic items since it is capable of searching, counting, and indicating how many times the target linguistic items occur in the text (Kennedy, 1998, p. 5). In the light of the developments in technology and embedded in the corpus studies, which is expressed as "the marriage of corpora with the computer technology" (McEnery, Xioa, & Tono, 2006, p. 4), the interest of corpus linguistics was brought back.

In that regard, the first modern corpus of the English language, the Brown corpus was built in the 1960s at Brown University by Nelson Francis and Henry Kucera (McEnery, Xioa, & Tono, 2006, p. 4; Tognini-Bonelli, 2010, p. 15). The Brown corpus covers one million words from published documents. The development of technology has also influence on collecting spoken data through tape recorders which were started to use in the late 1950s. It allows speech to be played back again and again and studied sound waves as well as transcribed speech recordings without shorthand (Tognini-Bonelli, 2010, p. 16). Therefore, benefiting from the improvements of the technology, the first electronic spoken corpus was compiled at the University of Edinburgh in 1963 by Sinclair's attempts. The spoken corpus contained 166,000 words through collecting and recording informal conversations in English (Tognini-Bonelli, 2010, p. 16). Even though spoken and written corpus were shown parallel growth in the 1960s, fewer improvements on corpus technology were observed in the 1970s in parallel with slow improvements on technology at that time. Still, the 1970s were the period at which corpora were assembled more than one million words and a spoken corpus covered detailed phonological transcription (Tognini-Bonelli, 2010, p. 16). In addition, the first corpus of a special variety of a language called the Jiao Da English for Science and Technology (JDEST) was assembled by Yang Huizhong in Shanghai (Tognini-Bonelli, 2010, p. 16).

Even though the advance on corpora was mainly related to the consolidation of existing corpora in the 1970s, the advances on corpora have gained speed along with the invention of scanners in the 1980s (Tognini-Bonelli, 2010, p. 16). Scanners have allowed accessing enormously printed words, and consequently, corpora have covered more amounts of words (Tognini-Bonelli, 2010, p. 16). Therefore, the scarcity of data has been no longer an issue. In addition, the advances in graphics and the emergence of mix media communication and animated text in the 1990s have enabled to be set new descriptive goals in the studies (Tognini-Bonelli, 2010, p. 16). In that regard, Sinclair (1982, p. 4) emphasizes a large

amount of data by indicating that while researchers were constrained to study with the scare data previously, they are now confused by a large amounts of data. Actually, considering the advances on corpora technology, its potentials to researchers, and consisting larger amount of authentic data, a large corpus has now considered to be a favor material in researches (Campoy-Cubillo, Belles-Furtuno & Gea-Valor, 2010, p. 30; McCarthy & O'Keeffe, 2010, p. 5; McEnery, Xioa, & Tono, 2006, p. 4; Tognini-Bonelli, 2010, p. 16).

Types of Corpora

Along with the advances in technology, corpora have consisted of a large amount of data, however, it is still difficult to deal with such amount of data (Sinclair, 1982, p. 4). Therefore, different types of corpora have been compiled. Today, there have been thousands of corpora in the world. Most of them were compiled for specific research projects which are not available for the public while others were compiled as publicly available resources and can be benefitted for different purposes (McEnery, Xioa, & Tono, 2006, p. 59).

General and Specialized Corpora

The variety of a given language is balanced in a general corpus; that is, when a corpus is stated that it is naturally general, then it will be balanced in terms of domains and genres that typically represent the target language (McEnery, Xioa, & Tono, 2006, p. 59). The kind of corpus can include either written or spoken data, or it may contain both. In that regard, British National Corpus (BNC) which aims to represent modern British English as wide as possible can be indicated as an example to the general corpus. It contains 100,106,008 words collected from 4,124 written texts and transcripts of speech in modern British English (McEnery, Xioa, & Tono, 2006, p. 59). The written samples comprise regional and national newspapers, specialist periodicals, academic books, journals, popular fiction, published and unpublished letters, and school and university essays. On the other hand, the spoken part includes transcripts of large amount of informal conversations from all different ages' respondents, from different regions, from all social classes as well as from various contexts from formal government and business meetings to radio shows and phone-ins (McEnery, Xioa, & Tono, 2006, p. 59-60).

Considering its nature, BNC can be also seen as an effective source for various research questions in such fields as lexicography, artificial intelligence, speech recognition and

synthesis, literary studies, and linguistic and language studies (McEnery, Xioa, & Tono, 2006, p. 60). In addition to its effectiveness, it can be a reliable source for contrastive language studies. Actually, a number of corpora have been compiled with the aim of matching for BNC. For instance, American National Corpus (ANC) which contains 100 million words has been assembled to match for BNC (McEnery, Xioa, & Tono, 2006, p. 60). In addition, the corpus contains additional components of the words selected with the aim of providing the largest and the broadest selection of the text as much as possible (McEnery, Xioa, & Tono, 2006, p. 60). In that vein, The Korean National Corpus and the Polish National Corpus have a similar model with BNC.

In contrast to general corpora which represents the language in general, specialized corpora focus on a specific genre or domain, or a sub-language (McEnery, Xioa, & Tono, 2006, p. 60). In that regard, the Guangzhou Petroleum English Corpus and the HKUST Computer Science Corpus can be shown as examples to specialized corpora since the first one includes the words of written English chosen from the domain of petrochemical while the second contains the data of written English from undergraduate textbooks in computer science (McEnery, Xioa, & Tono, 2006, p. 60). Considering their nature and specialized area, it can be indicated that both corpora are domain specific.

In addition, specialized corpora provide a useful source for academic and professional basis. The Corpus of Professional Spoken American English (CPSA), for instance, they are compiled from transcripts of professional interactions and includes two main sub-corpora: academic discussions and transcripts of White House press conferences. The Michigan Corpus of Academic Spoken English (MICASE) including approximately 1.7 million words can be also given as an example to specialized corpora. The specialized corpora are assembled from contemporary university speech and can be accessed at an online corpus website (McEnery, Xioa, & Tono, 2006, p. 61). In addition, the Professional English Research Consortium (PERC) aims to compile Corpus of Professional English (CPE) consisting of 100 million words from working professionals and professionals-in-training' spoken and written discourse and form various domains such as science, engineering, technology, law, medicine, finance, etc. (McEnery, Xioa, & Tono, 2006, p. 61). Regarding the examples of specialized corpora, it can be indicated that it provides a valuable and effective source for the investigations of a specific genre or domain.

Written and Spoken Corpora

It is possible to encounter with approximately one-billion-word written corpora since corpus linguistics have mainly focused on analyzing the written language from the emergence of corpus linguistics with the aim of understanding the language structure and usage (Adolphs & Knights, 2010, p. 38). In that regard, The Brown University Standard Corpus of Present-Day American English is the first modern written corpus of American English (McEnery, Xioa, & Tono, 2006, p. 61). The corpus was assembled from roughly 2,000 words from written texts divided into fifteen categories such as romantic fiction, science, religion, press reportage, biographies, essays, etc. and produced in 1961 (Adolphs & Knights, 2010, p. 38; McEnery, Xioa, & Tono, 2006, p. 61).

Taking the Brown corpus as a model, an amount of other written corpora has been compiled (McEnery, Xioa, & Tono, 2006, p. 61). In that regard, the Lancaster-OsloBergen Corpus of British English (LOB) is the British English version of the Brown Corpus (Johansson, Leech, & Goodluck, 1978). Even though the LOB is assembled in the same techniques with the Brown Corpus, it stands for the written text in British English produced in 1961. Therefore, LOB and Brown corpora can be taken as a reference to compare the major differences between American English and British English (McEnery, Xioa, & Tono, 2006, p. 61). In that vein, two Freiburg corpora have similar relationships with the Brown/LOB corpora with the exception that the two corpora have been built in the 1990s. In other words, the Freiburg-LOB Corpus (FLOB) represents British English while the Freiburg-Brown Corpus (Frown) represents American English. The two Freiburg corpora can be taken as references to observe the language changes in American and British English by comparing the data with Brown/LOB corpora as well as allow users to figure out the differences between British and American English (McEnery, Xioa, & Tono, 2006, p. 61-62).

In addition, a number of corpora have been compiled by taking Brown corpus as a model with the aim of observing the diversity of English. Australian Corpus of English, which is assembled from the written text produced dating from 1986, is one of the corpora mentioned. The Wellington Corpus of Written NZ English (WWC), which was compiled from written texts in New Zealand English produced between 1986 and 1990, is another corpus that taken Brown corpus as a model. Besides, Kolhapur corpus was assembled from the written texts produced in Indian English and in 1978 and after (McEnery, Xioa, & Tono, 2006, p. 62).

On the other hand, spoken corpora tend to be compiled in a smaller size in comparison with the written corpora and cannot provide recurrence of individual items and phrases in

comparison with the written corpora (Adolphs & Knights, 2010, p. 38). Besides, the analysis of spoken discourse is much more challenging regarding such elements of spoken discourse as intonation, gesture and discourse structure (Adolphs & Knights, 2010, p. 38). Still, a spoken corpus offers an essential source for analyzing the naturally occurring discourse (Adolphs & Knights, 2010, p. 38). In that regard, a variety of spoken corpora have been available. They include London-Lund Corpus (LLC), the Lancaster/IBM Spoken English Corpus (SEC), the Cambridge and Nottingham Corpus of Discourse in English (CANCODE), the Santa Barbara Corpus of Spoken American English (SBCSAE), the Wellington Corpus of Spoken New Zealand English (WSC), the Limerick Corpus of Irish English (LCIE), MICASE, and the spoken component of BNC (Adolphs & Knights, 2010, p. 38; McEnery, Xioa, & Tono, 2006, p. 62).

As an example to spoken corpora, CANCODE is one of the components of Cambridge International Corpus (CIC) and comprises five million words from the transcription of spontaneous speech in Britain (Adolphs & Knights, 2010, p. 38; McEnery, Xioa, & Tono, 2006, p. 63). The corpus includes a wide range of situations such as casual conversation, individuals working together, individuals shopping, discussions and so on. (McEnery, Xioa, & Tono, 2006, p. 63). Besides, SBCSAE is one of the United States of America (USA) components of International Corpus of English (ICE) and covers hundreds of the transcriptions of spontaneous speech. It represents a wide range of individuals from different regional origins, ages, ethnic and social backgrounds, and occupations (McEnery, Xioa, & Tono, 2006, p. 63).

Considering the fact that spoken discourse is multi-modal in nature, a number of spoken corpora which include visual and audio data with the recordings of a conversation (Adolphs & Knights, 2010, p. 39). They include Nottingham Multi-Modal Corpus (NMMC) which comprises 250,000 words from recorded single speaker and dyadic discourse, the Augmented Multi-Party Interaction Corpus (AMI) which covers recorded 100-hour meeting room, and the SCOTS Corpus that was compiled from audio files of Scottish texts and speech aligned with transcriptions (Adolphs & Knights, 2010, p. 39).

Synchronic and Diachronic Corpora

Synchronic corpora can be defined as the types of corpora that are assembled the data in the same periods (McEnery, Xioa, & Tono, 2006, p. 64). In that regard, Brown and Frown for American English, and Brown and Frown for British English allow users to compare the data

in different time periods regarding their nature of compiling data at different times. However, ICE can be specifically shown as an example to synchronic corpora since it has been designed for synchronic studies (McEnery, Xioa, & Tono, 2006, p. 64). The ICE is actually the collection of twenty corpora and compiled from written and spoken English data produced after 1989. Therefore, its main purpose is to allow users to compare English data produced worldwide (McEnery, Xioa, & Tono, 2006, p. 64).

On the contrary of the ICE, few corpora which enable users to compare regional dialects exist. In that regard, the spoken component of the BNC can be utilized to compare the dialects in Britain while the Longman Spoken American Corpus can be utilized to compare the dialects in the USA (Aston & Burnard, 1998, p. 31; McEnery, Xioa, & Tono, 2006, p. 64). Even though the components of corpora can be used in that regard, the Survey of English dialects which is a spoken corpus assembled in 1948 by Harold Orton at the University of Leeds was compiled specially to compare the traditional dialects based on the data collected from interviews conducted at 318 locations in England (McEnery, Xioa, & Tono, 2006, p. 64).

In contrast, diachronic corpora are compiled from the texts produced in the same language but different time periods; therefore, they are generally used to observe the changes in language evolution (McEnery, Xioa, & Tono, 2006, p. 65). In that vein, Helsinki Diachronic Corpus of English Texts is one of the best-known diachronic corpora. It has been assembled from roughly 1.5 million English words produced from the eighth to eighteen centuries and consists of various genres and sociolinguistic variables (McEnery, Xioa, & Tono, 2006, p. 65). The corpus also divides the time periods into three categories which are Old, Middle, and Early Modern English. Besides, A Representative Corpus of Historical English Registers (ARCHER) is another example of diachronic corpora. The ARCHER consists of the data collected from both British and American English from 1650 to 1990 and divides the time periods into five categories (McEnery, Xioa, & Tono, 2006, p. 65). Regarding the two corpora's divided time periods and their natures, it can be indicated that both corpora can be typical examples of diachronic corpora.

Learner Corpora

Learner corpora is a compilation of writings and/or speeches produced by second language learners and directly concerning language classrooms (McEnery, Xioa, & Tono, 2006, p. 65). Therefore, it can be indicated that the data gathered through cross-sectional or

longitudinal analysis are the production of second language learners. Within this context, the International Corpus of Learner English (ICLE) can be indicated as one of the best-known learner corpora (Granger, 2003). The ICLE includes roughly three million words collected from the essays produced by advanced learners of English who have fourteen different mother tongues (McEnery, Xioa, & Tono, 2006, p. 66).

The Longman Learners' Corpus is another example of learner corpus. It consists of ten million words gathered from the texts produced by English learners who had different levels of proficiency backgrounds and the texts produced by L2 learners are various ranges such as in-class essays, exam essays, assignments, etc. (McEnery, Xioa, & Tono, 2006, p. 66). In that regard, the Longman Learners' Corpus can be indicated as a useful resource for lexicographers and textbook material writers regarding the fact that both aim to meet the learners' specific needs (McEnery, Xioa, & Tono, 2006, p. 66). In addition, the Cambridge Learner Corpus (CLC) is the compilation of second language learners' writings and it currently consists of 20 million words (McEnery, Xioa, & Tono, 2006, p. 66). The English data have been gathered from students who take Cambridge English for speakers of other languages (ESOL) English exams.

Monitor Corpora

A monitor corpus differs in its expandable nature when compared with other types of corpora; that is, monitor corpora have been regularly updated and added fresh material to text types (McEnery, Xioa, & Tono, 2006, p. 67). In other words, even though the size of monitor corpora keeps increasing, the number of text types remain constant. Therefore, monitor corpora are generally prone to be much larger than sample corpora. However, Leech (1992, p. 10) defines it as an ongoing archive that a monitor corpora do not have a specific size and is prone to be balanced. In contrast, Sinclair (1991, p. 24) indicates that growing dynamic corpora is much more essential compared with the static sample corpora. In that similar vein, Aston and Burnard (1998, p. 22) indicate that the growth in the size of corpora also means the growth in the number of samples. Therefore, it can be inferred that some linguistics do not regard it as a true corpus defining it as an "ongoing archive" (Leech, 1992, p. 10), others indicate that monitor corpora are also useful and essential discussing that allowing users to reach more amount of sample.

In that regard, Bank of English which currently consists of 524 million words of English can be regarded as monitor corpora. It has expanded its data regularly since it was built at the

1980s (Hunston, 2002, p. 15). The Global English Monitor Corpus is another example to typical monitor corpora regarding that it was assembled in 2001 as an electronic archive compiling the world's leading newspapers in English and keep updating current data. The main aim of the building the corpus is to observe language use and semantic changes reflected in newspapers in order to determine whether the English language discourses in the target countries are divergent or convergent (McEnery, Xioa, & Tono, 2006, p. 67). Besides, Analysis of Verbal Interaction and Automated Text Retrieval (AVIATOR) compiled at the University of Birmingham aims at observing changes of language use and meaning; therefore, it uses various filters to determine and categorize new word forms, new pairs or terms (McEnery, Xioa, & Tono, 2006, p. 67).

Corpora Use in Language Teaching and Learning

Corpus studies embedded with linguistics and language teaching and learning have become prominent especially since the 1980s regarding the fact that it enlightens almost all branches of language education or linguistics (Leech, 1997, p. 9; McEnery & Xiao, 2010, p. 364). Actually, corpus data give its power and efficient from its empirical nature; that is, linguistic analysis is conducted more objective on the occasion of incorporating authentic and various data (McEnery & Wilson, 2001, p. 103). Hence, corpora have used such linguistic areas as lexicographic and lexical studies, grammatical studies, language variation studies, contrastive and translation studies, diachronic studies, semantics, pragmatics, stylistics, sociolinguistics, discourse analysis, forensic linguistics, and language pedagogy (McEnery & Xiao, 2011, p. 364). Sinclair's Bank of English (BoE) in collaboration with Collins publishing was one of the significant studies in this context in the early 1980s (Tognini-Bonelli, 2010, p. 16). Bank of English is a vast amount of word corpus consisting of different native-speaker varieties of spoken and written English. It enables English language learners to make benefit from better since it presents 'real' English and focusing on those items and meanings that learners are most likely to encounter in actual communication (Tognini-Bonelli, 2010, p. 16). Regarding its context and aim, it can be said that this project provides an indirect transition from corpus linguistic to pedagogical corpus applications.

The interest in corpus-based studies embedded with language pedagogy has been grown especially in the early 1990s. In the perspective of providing help to language pedagogy, the corpus has been benefitted in two main ways: descriptive analysis to language teaching and learning (Corpus-based Approach), and direct effect of language teaching and learning

(Data-Driven Learning).

Corpus-Based Approach to Language Pedagogy

With the development of technology and its effects on corpora studies, which is expressed as "the marriage of corpora with the computer technology" (McEnery, Xioa & Tono, 2006, p. 4), researchers have had great opportunity to cover large bodies of language. Thus, the perspective toward linguistic studies have been changed and it is undeniable that the use of corpus has a significant effect on linguistic studies (Campoy-Cubillo, Belles-Furtuno & Gea-Valor, 2010, p. 5; Godwin-Jones, 2001; Kennedy, 1998, p. 3; McEnery, Xioa & Tono, 2006, p. 4; Sinclair, 1996, p. 15). Considering the nature of corpora, it can be stated that it provides a considerable data to linguistics for contributions in the field of Second Language Acquisition and an authentic context for foreign learners (Campoy-Cubillo, Belles-Furtuno & Gea-Valor, 2010, p. 5; Godwin-Jones, 2001; Kennedy, 1998, p. 3; McEnery, Xioa & Tono, 2006, p. 4). In addition, electronically stored authentic language database allows researchers to search a large amount of data in a fast and systematic way with the help of computer-readable tools (Godwin-Jones, 2001; Kennedy, 1998, p. 3).

Concordancers are considered to one of the computer-readable tools that are used frequently in the corpus studies at language learning. It can be defined as "an alphabetical listing of words in a text or collection of texts, together with the contexts in which they appear" (Godwin-Jones, 2001, p. 9). A concordance line provides learners the searched word in a fixed field, and list of words' each occurrence and usage in separate lines. However, it should not only be considered as simple word lines but also viewed as the source of collocation and extensive statistic studies regarding the fact that it provides an authentic language and wide range of contexts for new vocabulary teaching (Godwin-Jones, 2001). Considering its machine-readable nature as well, it can be indicated that it provides authentic and contextual data and more importantly, it provides an accurate description of searched lexical items' typical examples usages in a few seconds (Godwin-Jones, 2001; McEnery & Xiao, 2011, p. 365). Furthermore, concordance lines give an accurate description of the lexical items' usage regarding its nature of covering textual genre and sociolinguistic features. Therefore, researchers have benefitted from corpus tools in order to investigate the previously determined linguistic features or compiled learner corpus to analyze systematic patterns of variation and use.

Analyzing Language Patterns

Harwood (2005) conducted a corpus-based study with the aim of finding out how the personal pronouns 'I' and 'we' were used in the academic context. Compiling journal research articles from particular fields, he extracted the data in order to examine the use of personal pronouns in academic writings. The findings indicated the use of personal pronouns publicized the academic writers and more importantly, journal research articles even in the hard sciences could have the feature of self-promotion by using personal pronouns. Similarly, Laufer and Waldman (2011) compiled a learner corpus from learners' descriptive and argumentative essays to find out the use of English verb-noun collocations in the writings. They retrieved the most frequent 220 nouns and created concordancers for them. The aim was to compare the second language learners with native speakers with regard to the frequency of collocation use and compare learners with different second language learners regarding the correctness and frequency of collocation use. For that comparison, the Louvain Corpus of Native English Essays (LOCNESS) was utilized as a corpus tool. The findings showed that second language learners used quite fewer collocation compared with native speakers and second language learners made more errors in comparison with natives. Especially interlingual errors continued to occur even at advanced levels.

Özbay (2015) conducted a contrastive learner corpus analysis in his study aiming at investigating the use of verb constructions. English Language Teaching (ELT) learners' academic essays were compiled, and Karadeniz Technical University Corpus of Academic Learner English (KTUCALE) corpus was utilized as a main data analysis tool while British Academic Written English (BAWE) was utilized as the reference academic learner corpus in his study. The data were analyzed by comparing the language use of learners with two distinct levels. The findings on KTUCALE corpus analysis revealed that learners' overuse or underuse support verb construction while the results on BAWE corpus analysis showed the diversity use of support verb construction. In that vein, Ersanlı (2015) also compiled a learner corpus on the purpose of investigating the ELT learners' use of cohesive devices in the Turkish context. The non-native corpus was generated from the essays obtained from the freshmen university learners and compared with native corpus in order to reveal the differences and similarities of the use of cohesive devices. The results of comparison stated that Turkish EFL learners overuse and misuse the cohesive devices in their academic writings. Besides, Crompton (2005) also studied the use of 'where' by comparing the academic text produced by foreign language learners of English with the ones produced by

native speakers of English. The data were obtained from the academic texts written by foreign language learners of English and as for the academic text by native speakers. The findings showed that foreign language learners overused the word 'where' in academic writings.

Apart from benefiting corpus and corpus tools in academic discourse, Çelebi (2012) utilized British National Corpus and Spoken Turkish Corpus for investigating impoliteness in spoken interaction. The findings indicated that both British English and Turkish generally triggered impoliteness. Similarly, Özcan (2015) utilized Spoken Turkish Corpus to investigate 'evet' and 'hı hı' as international markers in terms of pragmatics and conversation analysis in his corpus-based study with the aim of figuring out their international features and functions. AntConc and Praat were also utilized as corpus tools in order to analyze the functions of target international markers. The findings showed that the functions of 'evet' and 'hı-hı' occurred differently in spoken discourse.

On the other hand, Akkoç (2017) benefitted from a corpus tool, AntConc for error analysis. The corpus tool was utilized in an attempt to determine and classify ELT learners' errors and their reasons in the Turkish context; therefore, she examined learners' translations. In the examination of errors, the target corpus was consulted in the search of every instance of word or phrase. Besides, the target corpus was used in the analysis of data by noting down concordance hits after searching the words or phrases. Based on the findings obtained from the identification and analysis of errors, she divided errors into four categories.

Analyzing and Developing Language Teaching Materials

Corpora have also viewed as a source for developing or evaluating language teaching materials. Various corpus tools can be a reference to material writers in order to develop natural, appropriate and language teaching materials with the correct use of language as well as a reference source for evaluating language teaching materials from various aspects (McEnery & Xiao, 2011, p. 364). In that sense, Mindt (1996) found out that the use of grammatical structures in textbooks was not similar in comparison with the use in natives and discussed that English textbooks failed to provide the use of real English. In this vein, he stated that "a kind of school English which does not seem to exist outside the foreign language classroom" (Mindt, 1996, p. 232). Corpus use actually can help detect and fill the deficiency of the English materials since it provides realistic and natural examples of language use (McEnery & Xiao, 2011, p. 364). In that frame, many researches have been

conducted to investigate English language teaching materials through corpus use.

Barbieri and Eckhardt (2007) conducted a case study to show reported speech presented in current popular ESL grammar textbooks through comparing data with the corpus-based findings. After looking into current popular ESL grammar textbooks, they found out that the use of reported speech in those textbooks was contrasted with the findings of corpus-based cross-register studies and concluded that current popular ESL grammar textbooks ignored presenting the use of reported speech structure in real language. Baydal (2016) also have drawn attention to the use of vocabulary in an EFL course book. He aimed to find out the highly used words in course books, the word selection, and appropriateness to A2 level CEFR. He benefitted from two corpus software program to build up the vocabulary profile of the whole words in the selected course book. The findings indicated that the words in the selected course book do not match with the British National Corpus with regards to word, parts of speech, and level of a semantic field. Therefore, he suggested that corpus tools and corpus software programs should be consulted in developing language teaching course books.

Similarly, Gabrielatos (2006) investigated the conditional sentences presented at English language teaching textbooks. After looking into the conditional sentences in the target textbooks, he compared them with the conditional sentences extracted from British National Corpus. The findings showed that English language teaching materials presented a distorted use of conditional sentences and restricted learners' repertoire. Regarding the studies based on the corpus use as a reference tool in the evaluation of the English language teaching materials, it can be concluded that corpus tools can be viewed as a source in the functionality of language teaching materials. In addition, the studies mentioned proved that corpora are effective tools in analyzing the language use presented in the English language teaching textbooks since they provide more accurate descriptions of language use (McEnery & Xioa, 2011, p. 367).

Besides, Peksoy (2013) utilized British National Corpus as a reference tool with the aim of investigating the authenticity of language learning course books used in Turkey in terms of particular grammatical items and their collocations. He found out that the language learning course books used in Turkey were not authentic regarding that the use of specific grammatical items and the frequency of their collocations in the selected course books were slightly similar compared with the data-driven from concordancers. Similarly, Ekşi and Aşık (2016) examined the authenticity of the dialogues presented at textbooks produced in

Turkey. They utilized the corpus tool, COCA as a reference tool in the evaluation of the authenticity of dialogues. The dialogues were analyzed and compared with the data driven by the selected corpus tool. The findings stated that the dialogues presented in the textbooks produced in Turkey are mostly faulty and unnatural. It was indicated that the dialogues also included some invented utterances. Both studies actually have highlighted the importance and the effective use of corpus in developing textbooks especially in such countries where English is spoken as a foreign language and suggested that material writers should take into consideration to consult native speaker corpora since they present natural and authentic language.

Developing Assessment Materials

Apart from using the corpus for identifying accurate descriptions of language use and evaluating English language teaching materials, corpus and concordancers provide effective data for developing assessment items (Godwin-Jones, 2001; McEnery & Xiao, 2011, p. 368). Alderson (1996) enlarges the possible use of corpora and adds that corpora can be helpful in constructing, compiling, and selecting test, presenting test, capturing responses, and scoring tests. In that sense, he stated that "[t]he potential advantages of basing our tests on real language data, of making data-based judgments about candidates' abilities, knowledge and performance are clear enough. A crucial question is whether the possible advantages are "born out in practice" (Alderson, 1996, p. 258–259). Regarding the recognition of computer-based tests in the current education and comparable to paper-based tests, it can be said that his concern has been quelled. In that sense, Barker (2014) indicates that corpora provide the structure, function, and usage of the language as well as task genres, ranges, and levels when building test materials. Considering that corpora cover the native speaker output or learners' materials in electronic version, various linguistic features are marked up and searched, it is stated that test designs are supported by corpus analysis (Barker, 2014; Taylor & Baker, 2008).

Referring to a variety of corpora data provided to test materials, McEnery and Xiao (2011, p. 368) have listed the major services of corpus tools on language testing. It is indicated that corpora can be viewed as an archive for examination scripts since they present real data for test makers and as a reference tool for developing and optimizing test materials (Barker, 2014; McEnery & Xiao, 2011, p. 368; Taylor & Baker, 2008). Within this context, Coniam (2004) benefitted from corpora with the aim of generating cloze tests through retrieving the

data of word frequency. In his study, he discussed the potential aid of corpus tools in producing good and realistic test materials.

Besides, corpora can be viewed as an aid tool for improvement of the quality of test markings as well as test validation (Barker, 2014; McEnery & Xiao, 2011, p. 368; Taylor & Baker, 2008). In that regard, Kaszubski and Wojnowska (2003) generated a corpus-driven computer program, TestBuilder which has enabled users to build sentence-based ELT exercises. The program has benefitted from corpora to extract the plain text and annotations with part-of-speech and the annotated data has been used as input in building test materials.

In sum, corpora tools have exceeded the limits of studying language use and allow researchers to study with a large amount of the use of linguistic items in a shorter time. Many studies (e.g. Akkoç, 2017; Crompton, 2005; Çelebi, 2012; Ersanlı, 2015; Harwood, 2005; Laufer & Waldman, 2011; Özbay; 2015; Özcan, 2015) investigated the previously determined linguistic features via corpus or compiled learner corpus to analyze systematic patterns of variation and use. Besides, spoken and written corpus tools and resources have also been benefited to investigate various aspects of the textbooks (e.g. Barbieri & Eckhardt, 2007; Baydal, 2016; Gabrielatos, 2006; Ekşi & Aşık, 2016; Peksoy; 2013) and have been used to design assessment (e.g. Coniam, 1997; Kaszubski & Wojnowska, 2003).

Data-Driven Learning

Even though corpus-based researches have been conducted with the aim of discovering the patterns of previously determined linguistic features, generating and developing the English language teaching textbooks, and second language assessments, its application in language teaching setting has for a long time remained behind such breakthrough (McEnery & Wilson, 1997, p. 2; Leech, 1997, p. 2; Sinclair, 2004, p. 15). Perhaps, Sinclair's Bank of English (BoE) in collaboration with Collins publishing was one of the significant studies in this context in the early 1980s (Campoy-Cubillo, BellesFurtuno & Gea-Valor, 2010, p. 21-22). Bank of English is a vast amount of word corpus consisting of different native-speaker varieties of spoken and written English. It enables English language learners to benefit from better dictionaries and teaching materials presenting 'real' English and focusing on those items and meanings that learners are most likely to encounter in actual communication (Campoy-Cubillo, Belles-Furtuno & GeaValor, 2010, p. 20). Regarding its context and aim, it can be said that this project provides an indirect transition from corpus linguistic to pedagogical corpus applications.

Besides, the Collins COBUILD English Course (CCEC) aiming at presenting the commonest words and phrases in English, their meanings and the system of empirical grammar of English verb can be considered the indirect application of corpora to language teaching (Mindt, 2000). Thus, it allows the syllabus and material designer to select the most appropriate and useful language items in the course (Campoy-Cubillo, Belles-Furtuno & Gea-Valor, 2010, p. 20). Similarly, the General Service List of English Words (West, 1953) providing a syllabus based on commonly used words instead of grammatical structures can be seen as an indirect corpus application to language teaching (Campoy-Cubillo, Belles-Furtuno & Gea-Valor, 2010, p. 20).

Even though there have been early attempts to integrate corpora application to language teaching, it was Tim Johns (1986, 1991a) who was the pioneer of the corpus use in language learning (Campoy-Cubillo, Belles-Furtuno & Gea-Valor, 2010, p. 20; Sinclair, 2004, p. 16). Even though corpora were a computing tool that was benefitted by linguistics and literary researchers, Johns (1991a) indicated that "research is too serious to be left to the researchers" (p. 2). In other words, he states that a language learner can be also considered as a research worker since they are capable of accessing linguistic data and driving their learning needs. In this similar vein, Knowles (1990) discussed the interaction between learning and research with regards to the corpus use by saying:

> "With the appropriate tool-kit, a corpus effects not only syllabus: it also affects the role of the student. […] with a corpus, the students can actually test the conventional wisdom of the textbook and find out what really happens in conventional texts. In this way, the distinction between teaching and research becomes blurred and irrelevant" (p. 47).

Johns (1986) studied the use of the concordancing software MicroConcord as a tool in grammar and vocabulary classes. He aimed to help learners interact with corpus and become "a linguistic researcher" (Johns, 1986, p. 160), and therefore, take active part in their learning process by discovering the patterns and meaning of the selected lexical items (CampoyCubillo, Belles-Furtuno & Gea-Valor, 2010, p. 20; Chambers, 2010, p. 346; Johns, 1991b, p. 2). In that regard, Johns (1991b) defines DDL as "the attempt to cut out the middleman as far as possible and to give the learner direct access to the data" (p. 30) and used the "language researcher" (Johns, 1986, p. 160) metaphor for language learners to underline the more active role of the language learners.

As an alternative approach to rule-based approach, DDL approach based on learners' linguistic performance instead of their linguistic competence; that is, it provides learners an access to an amount of corpus data and urges them to learn about language use by searching

the patterns or rules in the target language and studying how a phrase, pattern, or word is used through concordancers as well as checking the validity of the patterns or rules they have discovered from the materials (Boulton, 2009; Chambers, 2010, p. 345; Gilquin & Granger, 2010, p. 359; Johns, 1991a; O'Keeffe, McCarthy, & Carter, 2007, p. 24). In that vein, providing learners the authentic data through concordancers encourages their enquiry and to improve their ability to discover the patterns and rules in the target language and generalize the forms (Boulton, 2009; Chambers, 2010, p. 345; Gaskell & Cobb, 2004, p. 304; Johns, 1991a; O'Keeffe, McCarthy, & Carter, 2007, p. 24; Scott & Tribble, 2006, p. 6). Even though the approach shows similarities with the other inductive approaches with regards to recovering the rules from the given examples, the distinctive feature of DDL approach is that teachers do not know in advance the patterns or the rules that learners discover. In that regard, Johns (1991b, p. 3) discuss the distinctive feature of the DDL by indicating "It is this element of challenge and of discovery that gives DDL its special flavor and stimulus".

DDL brings authentic language into the classroom (Chambers, 2010, p. 345; Gilquin & Granger, 2010, p. 359; Johns, 1991b, p. 3). Therefore, it provides learners an opportunity to expose the authentic language and study with the large number of authentic instances of the particular linguistic items (Boulton, 2009, 2010; Chambers, 2010, p. 345; Gilquin & Granger, 2010, p. 359; Johns, 1991b, p. 3). In that regard, Gabrielatos (2006, p. 10) stated that condense and authentic exposure urges leaners to raise awareness of language patterns. In this vein, Johns (1991b, p. 31) also discussed the primary aim of DDL in his saying "help [students] to become better language learners outside the classroom" by conscious-raising and noticing.

It also brings the element of discovery into the classroom (Boulton, 2009; Chambers, 2010, p. 345; Gilquin & Granger, 2010, p. 359; Johns, 1991b, p. 3; O'Keeffe, McCarthy, & Carter, 2007, p. 24). In that vein, Gilquin and Granger (2010, p. 259) indicate that it is a more motivating and fun way of learning. In the literature, learners are considered as travelers (Bernardini, 2001, p. 22), researchers (Johns, 1991a) within the context of DDL. Since concordancers are the new focus of the classroom activities within the context of DDL, students become responsible for their learning and teachers only guide them by becoming coordinators and directors of the research initiated by learners (Chambers, 2010, p. 345; Johns, 1991a). It is also emphasized that learners develop their certain skills through concordancing since it encourages learners to become more involved, active and independent in their learning process through analyzing the target language; consequently, they also

become autonomous learners (Boulton, 2009; Chambers, 2010, p. 345; Cobb, 1997; Gilquin & Granger, 2010, p. 359; Hanson-Smith, 1993; Johns, 1986; Stevens, 1991; Qiao & Sussex, 1996). Therefore, Mair (2002) indicates that the learner is empowered; that is, the learner is encouraged to increase their confidence and self-esteem.

In addition, Gilquin and Granger (2010, p. 359) argue that learners gain a number of essential learning skills through the implications of DDL. In that regard, O'Sullivan (2007, p. 277) indicates that the learners practice certain learning skills which are "predicting, observing, noticing, thinking, reasoning, analyzing, interpreting, reflecting, exploring, making inferences (inductively or deductively), focusing, guessing, comparing, differentiating, theorizing, hypothesizing, and verifying" in the implementation of DDL.

The learning process of DDL, in other words, the essence of the DDL (Chambers, 2010, p. 345; Johns, 1991a) is actually parallel with the current educational and language learning pedagogy principle which offers learners an opportunity to become more active, reflective, and autonomous in their learning process (Hyland, 2003, p. 120). In this vein, Chambers and Kelly (2002) note that the nature of DDL combines the constructivist theories of learning which offer dynamic learning process based on exploratory and discovery learning. Considering that students are promoted to explore and discover the patterns and rules through analyzing concordance lines in DDL, and therefore; active involvement is promoted, DDL is consistent with the principles of constructivist theory. However, active involvement occurs through the guidance of teachers which is a parallel principle to 'scaffolding' (Vygotsky, 1986) approach.

DDL also promotes learner autonomy (Holec, 1981) by encouraging learners to be responsible for their own learning and solve the problems independently by analyzing the linguistic regularities from concordance lines. The results of the studies of Kennedy & Miceli (2001) and Yoon (2016) revealed that learners went through the process of solving language problems: formulate and derive terms, analyze concordance lines and choose relevant samples, and finally evaluated the results and made a conclusion. The process of promoting learners to behave like researchers actually highlights the learner autonomy at the same time.

In addition, DDL has parallel principles with the noticing theory which indicates that the acquisition of linguistic input is more likely to enhance through learners' attention to linguistic features (Schmidt, 2001, p. 4). In this vein, DDL encourages learners to draw their attention to recurrent linguistic patterns. Schmidt (1981, p. 5) also discusses that learners are more effectively aware of their errors by comparing their own input with target language

input. In that regard, DDL is an effective reference resource for learners to identify their inappropriate expressions and their errors, and correct their errors in writings (e.g. Alshaar & AbuSeileek, 2013; Boulton, 2009; Chambers & O'Sullivan, 2004; Chatpunnarangsee, 2013; Cotos, 2014; Cowan, Choo & Lee, 2014; Crosthwaite, 2017; Feng, 2014; Gaskell & Cobb, 2004; Kennedy & Miceli, 2010; Luo, 2016; O'Sullivan & Chambers, 2006; Reynolds, 2016; Yeh, Liou & Li, 2007). In that regard, DDL has a corrective function (Gilquin & Granger, 2010, p. 359). It encourages learners to make comparisons with their own language use with the authentic data driven from the corpora and find out their interlanguage features; consequently, improve their language skills. (Gilquin & Granger, 2010, p. 359). Therefore, it is indicated that DDL raises learners' awareness of the so-called fossilized errors that have already been covered in the class (Gilquin & Granger, 2010, p. 359; Nesselhauf, 2004, p. 140).

Data-Driven Learning in Grammar

Implementing DDL to grammar teaching has started with Johns' (1986) study of teaching prepositions through concordancing. He used concordance software MicroConcord in grammar instruction and materials prepared with concordance lines. The findings indicated that students were more active in the courses and the students viewed working with the concordance printouts as a more effective way of learning common prepositions. The study also revealed that highlighting the headword colligating with the preposition 'on' was more useful and effective than a gap-filling exercise. In addition, based on the experience during the study, Johns (1986) stated that concordancers also an important tool for teachers:

> "It is important that teachers themselves should have experience in using concordance output if they expect their students to make use of it. In my own case, examining output has often proved chastening: for example, a concordance of 'if' showed how often in scientific and technical texts it is followed by the bare adjective or past principle e.g. 'if available', 'if known' – a usage I found I had neglected in my materials on conditional constructions in English" (p. 159).

Benavides (2015) also investigated the use and effectiveness of the corpus tool the Corpus del Espanol in teaching collocations with the participation of university students. In the study, students searched the particular types of collocations through concordancing with the aim of better understanding and use the grammatical concepts. The findings obtained from the qualitative and quantitative data showed that corpus use was an effective way of a learning process and innovative use of technology. Similarly, Koosha and Jafarpour (2009) investigated the effectiveness of DDL in the learning collocations of prepositions. 200 EFL

students participated in the study and went through five-session treatment. While the control group was taught the target structure through the conventional methods, the experiment group received data driven-based instruction. The experiment group were presented concordancing lines in KWIC format and studied with the corpus-based materials. The findings revealed that DDL was an effective tool in teaching or learning the use of collocation of propositions.

In this similar vein, Liu and Jiang (2009) explored the effectiveness of corpus in learning contextualized lexicogrammar in foreign and second language teaching. In the study, students were assigned to corpus search projects. Integrating corpus use and concordancing into the course, they found out that students showed progress in the command of lexicogrammar and a critical understanding of grammar. It was reported that even though students had difficulty in corpus analysis, they improved their discovery learning skills.

In contrast to the results have shown that corpus as an effective way of learning grammar points, Girgin (2011) studied the effectiveness of corpus use on learning English grammar structures. He implemented corpus-based activities to six intact EFL classes in order to teach five target grammar structures. The findings indicated that even though students were able to use corpus-based activities effectively and showed positive attitudes towards corpus use, the results of their learning from corpus-based activities were similar to the conventional method.

Data-Driven Learning in Vocabulary

Apart from grammar, some researches were conducted to find out the effectiveness of corpus in vocabulary learning. In that regard, Thurstun and Candlin (1998) tried to find out the effects of concordancing programs on learning academic vocabulary. They developed corpus-based materials covering frequently used academic vocabulary. The findings revealed that corpus-based activities have a significant effect on students' academic vocabulary learning. Stevens (1991) also showed the significant effects of corpus-based materials on vocabulary teaching. He used concordances to prepare materials for vocabulary learning. It was reported that concordance-based exercises were effective in improving students' competence in semantic and syntactic elements of the target language. In a study on pre-entry ESL students, Cobb (1997) revealed that concordance use was efficient in learning vocabulary and students could efficiently use concordancing in vocabulary learning.

In this similar regard, Horst, Cobb, and Nicolae (2005) conducted a study that analyzed the effectiveness of concordance use on ESL students' vocabulary learning. They encouraged students to select academic words and search them through concordancing. It was reported that students could learn vocabulary by searching words into concordancers as well as learn their semantic, syntactic, and collocational features from the concordance output. Similarly, Gordani (2013) conducted a study to explore the effects of integrating corpora in vocabulary teaching. He integrated corpora use into 42 hours of reading comprehension classroom instruction. It was reported that corpus integration is an effective way of learning vocabulary.

As for the Turkey context, Ergül (2014) explored the effectiveness of corpus-based activities in learning English words in comparison with the traditional methods. In the study, the experimental group studied with the corpus-based materials while the control group worked on textbook and dictionaries. The findings indicated that vocabulary learning with corpus-based materials was more effective. In a similar vein, Kazaz (2015) also explored the effectiveness of the use of concordancing to teach vocabulary compared with the conventional methods by conducting research on eighty-two EFL students. She also found out that using concordance lines in teaching vocabulary was more effective than traditional methods.

Data Driven Learning in Writing

Second language writing is generally considered to be a challenging skill for EFL learners (Byrne, 1988, p. 4; Nunan, 1999, p. 271; Tolchinski, 2006, p. 84). The writing problems are commonly seen as non-nativelike and arise from lexical poverty and miscollocations etc. (Byrne, 1988, p. 4). In the previous studies, DDL is adopted to solve writing problems. In that regard, Boulton (2009) studied linking adverbials in English through corpus data in comparison with the traditional methods in order to improve students writing skills. He derived short contexts from the corpus. 132 first-year students worked on short context and truncated concordances. The findings indicated that data derived from the corpus was more effective for reference purposes. Cotos (2014) conducted a similar study to enhance writing pedagogy with learner corpus data. He developed two types of DDL activities. One was prepared to refer native-speaker corpus (NSC) while the other was prepared through combining native-speaker and learner corpora in order to enhance second language writers' knowledge of linking adverbials. 31 students worked on the two activities. The results revealed that students exposed to corpus and integrating it in their own writings made

significant progress in their writing performance.

Kennedy and Miceli (2010) introduced corpus to students as a reference tool in writing with the aim of solving students' grammatical problems and helping them to achieve accuracy in writing. Three students worked on corpus for a semester to improve imagination in writing, and then to be accurate in writing by solving the grammatical problems. The findings showed the effectiveness of corpus use as a reference tool in writing. Similarly, Yeh, Liou and Li (2007) aimed at increasing students' awareness of underused adjectives for EFL writing through DDL materials. Nineteen students were asked to distinguish synonym adjectives from concordance lines derived from bilingual collocation concordancer TANGO and worked on three corpus-based exercises. The findings revealed that students used more specific adjectives in their writings and they improved their overall writing skills.

However, it is seen that many studies in the literature have focused on error correction in writings through corpus search. In this vein, Reynolds (2015) conducted action research in order to find out the effects of web-based bilingual parallel corpus collocational concordancer on students' verb-noun collocational errors. 25 undergraduate students were encouraged to use a web-based bilingual parallel corpus collocational concordancer in editing first drafts of their writings. The results showed that the number of misused verb-noun collocations in their drafts decreased while the number of verb-noun enhanced. Therefore, he concluded that corpus consultation had positive effects on improving students writing skills in regard to verb-noun collocations.

Chatpunnarangsee (2013) also aimed at improving students' collocation use in their writings through corpus search. Twenty-four students attending the corpus-based writing course went through problem-solving process through analyzing corpus data and they got feedback on their miscollocated words from the teacher. They also worked on concordancing worksheets and trained them to search for correct collocations on web-based concordancers. It was reported that most students made progress in their collocation use through editing their writings. Similarly, examining the effectiveness of corpus on foreign language learners' writings, Lu, Hung and Lu (2016) prepared a corpus training program for learners. After corpus training, students were asked to edit their writings utilizing the corpus. The findings revealed that the corpus provided help students improve their language usages and correct their lexical and noun errors.

Gaskell and Cobb (2004) discovered the immediate effects of DDL in correcting second language learners' sentence-level grammatical errors in their writings. Students were

expected to consult concordancing as a reference tool in editing their writings with regards to sentence-level grammatical errors. It was revealed that correcting grammatical errors through corpus consultation had a slighter effect compared with the correcting lexical errors. Similarly, Cowan, Choo, and Lee (2014) studied how corpus consultation affects students' grammatical errors in sentence-level writings. Identifying four persistent grammatical errors through the compiled a large written English corpus produced by Korean undergraduate and graduate students, an ICALL program was designed with the aim of raising students' awareness of those four errors and encouraging them to correct their mistakes through practicing. In the study, students were asked to find the mistakes and correct them through corpus consultation. The findings indicated that students could raise the awareness of their persistent grammatical errors and could correct the syntactic errors arose from the errors of articles, passives, quantifiers, and demonstrative determiners through consulting corpus.

Luo (2016) conducted a relatively more general study and investigated the effectiveness of corpus consultation on students writing performance. After students received training on the use of corpus as a reference tool in editing their writings, students were asked to write compositions. The teacher underlined errors in the compositions and asked students to revise them through corpus consultation. The findings stated that students were more accurate and fluent in their revised writings in general.

However, Chambers and O'Sullivan (2004) and O'Sullivan and Chambers (2006) conducting more detailed two-phase researches with the aim of exploring the efficacy of DDL in correcting a variety of errors occurred in the students' writings. Eight postgraduate students of French were asked to write short texts and improve them through corpus search. The findings revealed that students corrected their grammatical (gender and agreement, prepositions, verb forms/mood, negation, and syntax), spelling, and capitalization errors. In addition, students were observed to change such lexico-grammatical patterning as native language interference, choice of verb and inappropriate vocabulary. Therefore, they concluded that consulting corpus was an effective way of improving students' writing performance.

In that regard, Alshaar and AbuSeileek (2013) investigated concordances and word processors effects on EFL students' writing performance. 48 MA students were expected to correct their grammatical and spelling mistakes in their writings through consulting linguistic corpora and word processors after receiving instruction on the use of corpora and word processors. It was reported that students made progress on their performance of the use

of grammar, synonym preposition choice, word collocations, word connotations, phraseology, and spelling; however, spelling and grammar word processor had a slighter effect on their writing performance. Tono, Satake, and Miura (2014) also investigated the effects of corpus data on revising different types of errors in the writings. 93 undergraduate students were asked to write short essays without using dictionaries. After corpus training, students were asked to revise their first drafts of their writings through corpus search. They classified 188 errors that occurred in the students' first drafts into three categories which are omission, addition, and misformation. The results indicated that it was easier to identify and correct omission and addition mistakes through corpus consultation while students had difficulty in correcting misformation errors.

Similarly, Crosthwaite (2017) studied DDL-mediated error correction. This study has been actually an initial step for identifying the type of errors teacher-provided with the corpus consultation and the effects of feedback through the corpus. In the study, students received a series of short Data-driven courses and 61 written samples submitted by 32 tertiary students were collected. The teacher highlighted the errors in the samples and students corrected the errors on their own with or without consulting the corpus. The samples were analyzed regarding the type of errors students corrected with or without corpus consultation and the findings of the study showed that students generally consulted corpus to correct the errors of word choice, word form, collocations, and phrasing. However, there was less consult corpus to correct the errors of deletion or morphosyntax. The results of post-course questionnaires also suggested that the usefulness of DDL for grammar learning was less perceived than that for vocabulary and the learning of phrases and the perception of teacher feedback on their writing were considered difficult.

In this similar vein, Feng (2014) investigated the effects of concordancing on the error correction process in essays, students' general writing performances and their attitudes towards corpus. Three graduate ESL students participated in the study. They were asked to write three essays on a given topic. All essays were analyzed regarding which errors were corrected through corpus consultation. The findings of the study showed that students had a certain pattern by using dictionaries and corpus when correcting errors. The most frequent error that was corrected was 'word choice'. The results also showed that corpus consultation had positive effects on their writing performance. Finally, as for their attitudes towards corpus concordancing, it was found that they had positive attitudes toward corpus in writing and error correction.

On the other hand, Luo (2016) examined the effects of DDL on solving students writing problems. In that regard, after students were trained on how to use the corpus tool, they were asked to examine paper-based DDL material with the aim of encouraging them to generate ideas and expressions in the pre-writing. They were also asked to write short essays regarding the topic, and then revise their writings through consulting the corpus. The results showed that implementing DDL materials to pre-writing tasks more encouraged students to come up with ideas and expressions in comparison with the traditional methods. As for the revision part, even though the results did not reveal any obvious advantages of the direct application of DDL on error correction compared with online dictionaries, it was stated that it was more useful in promoting students to reconstruct errant knowledge about language use. Similarly, Yoon (2008) aimed at developing second language students' writing competence through editing their own writings by the corpus search. Six L2 writers were expected to integrate corpus use into their writing processes through searching for their writing problems on the corpus. The teacher also referred to writing errors of students' drafts and promoted them to edit their own writings and find solutions through corpus search. The results showed that students who had difficulty in language issues and academic discourse familiarization improved their content and acculturation knowledge. However, students still had problems with applying the appropriate linguistic features at their final products.

The studies (Alshaar & AbuSeileek, 2013; Boulton, 2009; Chambers & O'Sullivan, 2004; Chatpunnarangsee, 2013; Cotos, 2014; Cowan, Choo & Lee, 2014; Crosthwaite, 2017; Feng, 2014; Gaskell & Cobb, 2004; Kennedy & Miceli, 2010; Lu, Hung & Lu, 2016; Luo, 2016; O'Sullivan & Chambers, 2006; Reynolds, 2015; Yeh, Liou & Li, 2007) showed that it is essential to implement DDL to writing classes with the aim of improving students' writing skills. Still, it is also crucial to take into consideration students' attitudes towards DDL. In this vein, in his study which explored the effects of concordancing on the error-correction process in essays, students' general writing performance and their attitudes towards corpus, Feng (2014) asked students to write essays and correct the mistakes through corpus consultation. The results showed that their attitudes towards corpus concordancing, it was found that they have positive attitudes toward consulting corpus in writing and error correction. Similarly, Quinn (2015) aimed at exploring students opinions about corpus use utilized in their writing processes. For this purpose, 58 undergraduate students received corpus training, they were presented how they could integrate corpus into their writing processes, how they could utilize corpus as a reference tool in correcting their errors. The

findings revealed that corpus as a reference tool was a positive experience for most of the participants and they reported that the corpus tool helped them improve their written expressions.

On the other hand, Aşık, Vural, and Akpınar (2016) explored Turkish EFL students' attitudes and beliefs toward DDL instruction with regards to lexical awareness and development. After introducing corpus and corpus data to students, they analyzed their attitudes and beliefs through questionnaire and a focus group interview. The results revealed that even though students had positive attitudes towards DDL instruction with regards to lexical awareness especially for synonyms and collocations, their awareness towards word frequency, idioms and vocabulary learning strategies were not raised through corpus use; therefore, negative attitudes were also reported. They discussed that negative attitudes could arise from the technical problems of the software and time-consuming corpus-based tasks.

Conclusion

This section has analyzed the effectiveness of peer feedback and self-editing in process writing within the context of constructivist theory as well as corpus tools as DDL tool in process writing. The literature has been arguing that self-editing and peer-feedback through corpus tools as DDL tool improves students' writing performance within the context of writing as a process and students' attitudes towards DDL.

CHAPTER III

METHODOLOGY

Introduction

This chapter provides information about the methodology of the research. It presents the design, setting in which the study was conducted, the sampling of the study, the instruments utilized for data collection, the data collection procedure, and the data analysis process.

Design of the study

The pre-experimental design was utilized in the study. The pre-experimental designs follow the basic experimental steps, but it is often studied with a single group. The pre-experimental studies do not also employ randomization procedures in the distribution of participants (Cohen, Manion & Morrion, 2005, p. 212).

Regarding the purpose of this study, it was considered to be suitable to employ One Group Pretest Posttest Study which is one of the types of pre-experimental design. In this type, one group is exposed to treatment and measured on a dependent variable before and after the treatment (Cohen, Manion & Morrion, 2005, p. 212). In this vein, Figure 2 presents the methodology of the study the light of the pre-experimental design.

Figure 2 present the methodology of the study which aims at examining the effectiveness of corpus use as a DDL tool in process writing, revealing how learners make use of the corpus in evaluating their own and one another's writings, and exploring Turkish EFL students' opinions about corpus use as a DDL tool in process writing.

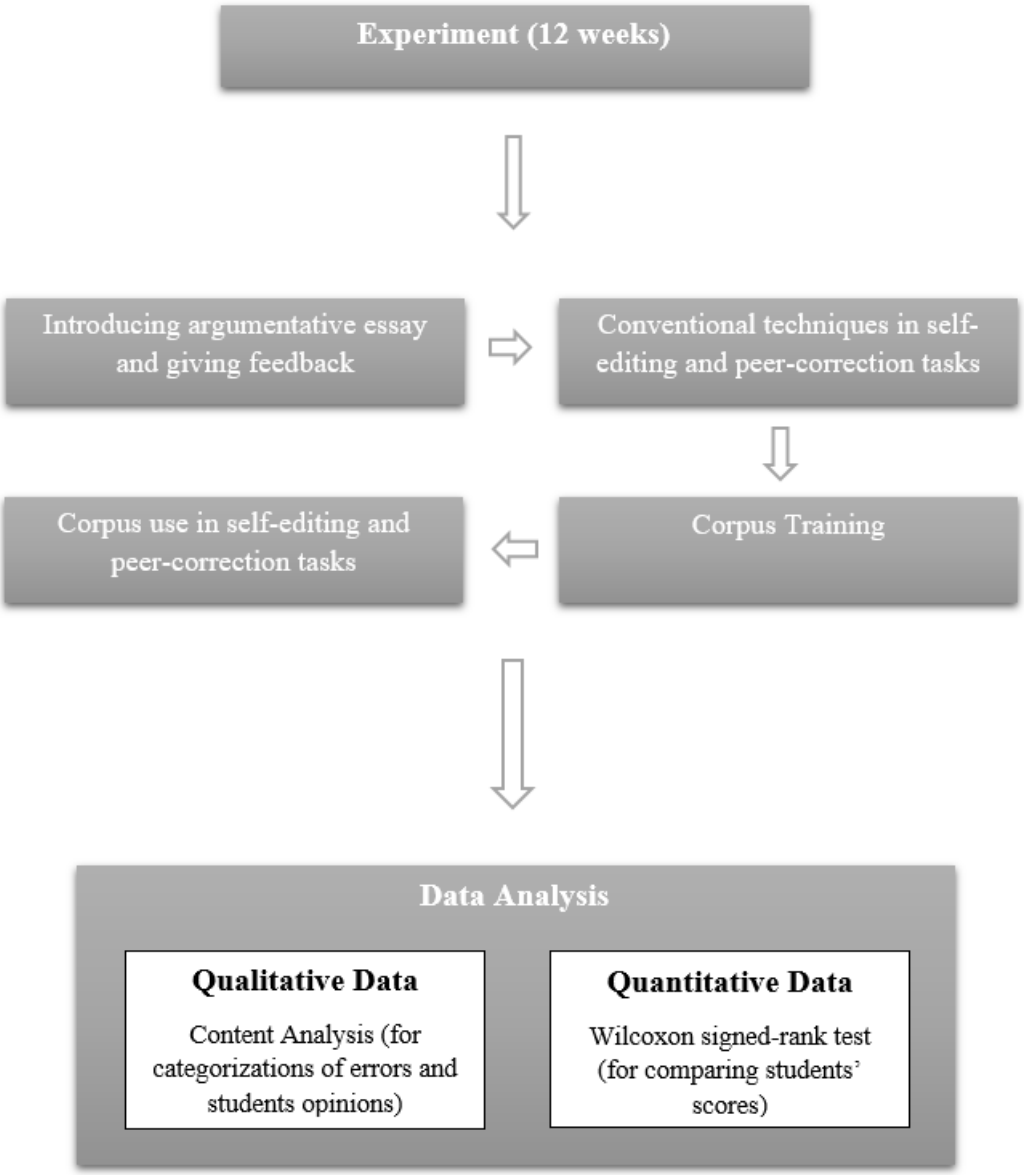


Figure 2. The methodology of the study

Setting

The study was conducted at Mustafa Kemal University, Department of English Language Teaching in the spring term of the 2017-2018 academic year. Department of English Language Teaching offers a four-year program that aims to train and educate prospective ELT teachers with a full whole-person and whole language philosophy.

Incoming students take a proficiency exam before the beginning of the academic year in order to determine whether students have enough language proficiency to study at the

department. The proficiency exam covers the skills of reading, writing, speaking, and listening in English as well as grammar structures. Students getting 60 marks or above out of 100 on the proficiency test gain a right to study at the department of English Language Teaching. On the other hand, students who get scores less than 60 points have to study at the preparatory program for a year.

Students take various courses at the preparatory program in order to develop their four skills (reading, writing, listening, and speaking) and get proficient to study at the department of foreign language teaching. Students at the preparatory program take twenty-five hours per week and are expected to regularly attend the classes. Instructors at the Department of English Language Teaching give lectures to the preparatory program. At the end of the academic year, students take a proficiency exam to complete the preparatory program.

After the preparatory program, freshman students are divided into two sections (Section 1 or Section 2) to attend to first-grade courses. Freshman students in Section 1 complete the preparatory program and gain a right to study at the first grade of the department. On the other hand, Section 2 is the ones who have been successful at the proficiency exam and directly attend the first-grade courses without studying at the preparatory program.

At Mustafa Kemal University, Department of ELT, an academic year is divided into fall and spring semesters and includes thirty-two weeks in total. Students take a variety of compulsory courses in a four-year program to complete 240 ECTS in total. Students attend class fifteen or eighteen hours per week. In any semester, students have to take a variety of must and elective courses and are expected to attend the class regularly. At the middle and end of a semester, students take midterm and final exams in order to provide instructors with information about whether students are proficient enough to pass the courses. Students who have successfully completed all courses are awarded Bachelor Degree in English Language Teaching. Students also have to get at least 2.25 GPA and successfully complete their intern program to graduate from the university.

Sampling of the Study

The study was conducted at the Department of English Language Teaching, Mustafa Kemal University. Convenience sampling was employed to select the participants of the study. Convenience sampling is generally employed in such situations that those who meet certain criteria are selected as participants of the study (Dörnyei, 2007, p. 98-99). Those criteria can

be geographical proximity, accessibility, availability at the determined time by researchers, or the willingness to participate in study.

In this frame, 100 freshman students from section 1 and section 2 enrolled in the second-term course Advance Reading and Writing II offered by the Department of English Language Teaching. However, 24 of these students who had failed the course at the previous year repeated the course without compulsory attendance. 24 repeat students did not attend the class; therefore, they could not receive the treatment. In addition, 15 students did not complete all tasks assigned for the purpose of the study; therefore, the data collected from the 15 students were not taken into account in data analysis.

Hence, 61 students out of 100 were regarded to take part in the study. 49 participants were female while 12 participants were male. The ages of the participants ranged from 18 to 20 and their English levels were upper-intermediate. Since the study was designed to have a single experimental group, all participant from both sections formed the experimental group and received the same treatment. The researcher was the instructor of the course and taught the course in both section 1 and section 2.

The participants had taken the Undergraduate Placement Exam in order to get into the Department of English Language Teaching. In this placement exam, they had taken 80- item English exam consisting of multiple-choice questions. Universities at which they would be placed had been determined according to their scores got from the Undergraduate Placement Exam. Thus, they were considered to have enough background knowledge of language skills. They had also taken in the first-semester course Advance Reading and Writing I and learned how to construct and structure a paragraph, and how to write a topic sentence, and main and minor ideas. Thus, they were considered to have enough background knowledge for essay writing. In addition, participants of the study were accessible and available for the researcher since the course Advance Reading and Writing II is a must course at the Department of English Language Teaching.

Instruments and Materials

The instruments utilized in this pre-experimental study were a holistic rubric and a written opinion survey developed by the researcher. The materials utilized in the study were a corpus tool (COCA), corpus notes and a PowerPoint presentation.

Holistic Rubric

In the experiment, the researcher and an expert graded the students' drafts through a holistic rubric (see: Appendix A). Rubrics can be defined as "the translations of visions of desirable performance into specifications of exactly what is desirable" (Mabry, 1999, p. 674). Rubrics are considered to be one of the valid ways in evaluating students' thinking and knowledge use in authentic applications (Carroll, Potthoff & Huber, 1996). In this vein, Perry (2005, p. 120) added that rubrics can be easily utilized when assessing participants' writing proficiency. Regarding the efficiency of rubrics in general, a holistic rubric was developed for the purpose of the study. Holistic rubric, which is a type of rubrics, scores the overall process or product as a whole without making any judgment about the component parts separately and it gives a single score to the object or behavior being evaluated (Nitko, 2001). In other words, the focus is on the overall quality. However, the rubric developed for the purpose of the study has five components and each was scored in itself as a whole which is referred to weighted rubrics.

Weighted rubrics take into account each criterion; however, it gives targeted criteria more weight than others depending on teaching focus, key components of the standard, and timing of assessment (Burke, 2009, p. 92). In other words, weighted rubric states to a degree how much each criterion is qualified (Burke, 2009, p. 92). In this vein, writing weighted rubric samples in the literature were examined. A set of criteria used to assess students' writings was determined regarding the purpose of the study. Two weighted rubrics were then prepared; one was in the form that scores in a range from 1 to 4 while the other scored in a range from 1 to 6. The two rubrics were submitted to three professors from the department of English Language Teaching for examination who taught the course Advance Reading and Writing for their opinions. One of them was the lecturer who taught the lesson at the target university in previous years in order to ensure that it met the objectives of the lesson. Arguing that it might be quite challenging to assess students' performance with a 6-point weighted rubric and distinguishing each point in a 6-point rubric, the weighted rubric which scores in a range of 1 to 4 was selected for the purpose of the study. As was mentioned, it is a 4-point scale: (1) strong writer, (2) capable writer, (3) emerging writer, and (4) basic writer.

The weighted rubric has also five dimensions: (a) content weighted 30 points out of 100, (b) organization weighted 20 points out of 100, (c) vocabulary weighted 20 points out of 100, (d) language use weighted 20 points out of 100, and (e) mechanics weighted 10 points out of 100. Regarding the distribution of the scores, it was aimed at giving equal scores to general

content and language use of the writings; in that, 50 points out of 100 were for general context and 50 points were for lexical items. The general context of the writings was divided into two: content and organization. Considering the fact that ideas are the basis of written products (Torrance & Galbraith, 2006, p. 67), the dimension of 'content' was scored out of 30 while the dimension of 'organization' was scored out of 20. As for the lexical items, the dimensions of 'vocabulary' and 'language use' were scored equally out of 20 while the dimension of mechanics was scored out of 10. The scores that would be obtained from the weighted rubric are between 0 and 100.

Written Opinion Survey

A written opinion survey was employed to participants for the purpose of the study (see: Appendix B). Survey studies aim at exploring the characteristic features of the population through examining a sample of the group (Dörnyei, 2007, p. 101). In this vein, opinions surveys aim at determining the opinions of the target population on a specific situation or a specific subject (Balcı, 2007, p. 141). Opinions could be collected via either open-ended questions or close-ended questions. However, Balcı (2007, p. 143) indicates that open-ended questions provide participants to state their opinions without any limitation.

The opinion survey was conducted with all of the participants (61) in the study. In the preparation of the written opinion survey questions, an expert from the Department of English Language Teaching was examined and gave feedback. In light of the opinions obtained from the expert, 7 open-ended questions were asked to the participants. The written opinion survey questions aimed to explore which sources they used in the self-editing and peer- feedback process and how students benefited from the corpus tool in process writing.

The first question aimed to reveal from which sources they benefitted in editing their writings and giving feedback to peers' writings before introduced to a corpus tool. The following two questions aimed at exploring how the participants utilized the corpus tool in their own writing process and in giving feedback to their peers. The fourth question was related to which errors they corrected through the corpus tool introduced. The following two questions asked their opinions about the effectiveness and usefulness of the corpus tool in improving the quality of their writings and how the corpus tool contribute to their writings. The last question asked the opinions of the participants about whether they were willing to continue to utilize corpus tools in their writing classes.

Corpus of Contemporary American English (COCA)

Corpus for Contemporary American English (COCA) was utilized as a Data-driven learning tool in the study with the aim of preparing appropriate corpus-based activities and promoting students to correct errors in their writings. It was selected for the purpose of the study since it has been freely-available for users. The corpus also covers more than 560 million words of authentic texts and divides into sub-sections: spoken, fiction, popular magazines, newspapers, and academic texts. The concordance lines from COCA were utilized for presentation and practice purposes. In the study, a variety of concordance lines taken from COCA was benefited in order to foster students to analyze language features and make interpretation through concordancing.

Training Materials

A PowerPoint was prepared to introduce Corpus for English language teaching and COCA as a corpus tool to students for the purpose of the study (see: Appendix C). First of all, the researcher presented what the corpus is, its characteristic features, and presented some corpora tools examples such as COBUILD, MICASE, BNC, COCA, etc. It was also discussed what corpora can show to users. Finally, it was discussed the benefits of corpora in language teaching. In the preparation of PowerPoint presentation, it was utilized from several books and researches conducted in language pedagogy.

The things that corpora can show to users were discussed in the presentation in detailed. First of all, it was discussed how to search word frequency in COCA and given example to the frequency of a word through screenshotting of concordance lines. It was then presented regarding the text types such as its occurrences in written texts, spoken texts. Searching collocations and synonyms were presented in the presentation. Their meanings were covered and how to search them at COCA was shown in the presentation. It was also presented collocations that proceed or follow the word in the presentation. Then, it was given various examples of search for collocations and synonyms through screenshotting of concordance lines.

Extracting rules of grammar structures were also presented. In order to foster their learning, screenshots of concordance lines of a specific grammar structure were shown and discussed in regard to extracting the rule taking into account how to use those grammar structures, their places, and how the following words were used in sentences. In this similar vein, searching syntactic and semantic patterns were shown students in the presentation after discussing their

meaning. In order to foster their learning, examples were shown to students. The given example taken from concordance lines was discussed in regard to preceding or following which syntactic structures. Then, students were promoted to make interpretation of the concordance lines in order to figure out its semantic prosody. Finally, the benefits of corpora use in language teaching were discussed referring examples and language components covered in the class.

Apart from the PowerPoint presentation, corpus notes were prepared for the purpose of the study (see: Appendix D). It was considered that students might have difficulty in remembering how to search all language features; therefore, corpus notes were distributed to students as reminders. The notes briefly covered the information on the presentation and mostly focused on their searching code which students required to enter the search part at COCA. In notes, searching collocations, synonyms, for direct and indirect speech were covered. In addition, key points in searching were highlighted in the notes for the purpose of the study.

Corpus-Based Activities

Corpus-based activities were prepared after reviewing the literature (see: Appendix C). Studies utilizing corpus-based activities as instruments were examined in regard to how the activities were formed and what they aimed at. In that regard, the corpus-based activities formed for the purpose the study were adopted from the studies of Maddalena (2001), Saeed and Waly (2010), and Simpson and Mendis (2003). The studies offer a number of activities that aims to teach different language structures to different levels of learners. Those activities were examined and adapted to the study taking into account participants' level of English.

Since students were introduced the target corpus tool for the first time, it was considered to be appropriate to prepare concordance lines beforehand. Students were expected to use the target corpus tool on their own for practicing certain learning skills such as guessing, noticing, analyzing, theorizing, etc. In that regard, O'Sullivan (2007, p. 277) indicates that students are required such skills as predicting, observing, noticing, thinking, reasoning, analyzing, interpreting, reflecting, exploring, making inferences (inductively or deductively), focusing, guessing, comparing, differentiating, theorizing, hypothesizing, and verifying in order to use corpus tool effectively in language learning.

For further practice for collocations, students were asked to guess the top 5 collocations of

a given word or guess the word from its collocations. Then, students were asked to categorize the collocations in regard to their meanings. The similar activities were prepared for practicing synonyms. Synonyms of a word taken from concordancers were shown to students and they were asked to guess the word from its synonyms. By clicking on synonyms one by one, their usages and meaning were shown. As for syntactic and semantic structure, concordance lines of a certain structure were shown to students and they were asked to guess the meaning, syntactic structure, and semantic prosody of the structure. In order to practice grammar structures, students were shown sentence taken from concordance lines and including target grammar structure and asked to extract the rule from the sample sentences.

For further practice for analyzing and interpretation of concordance lines, some sentences from the target corpus tool with highlighting phrasal verbs were presented to students and asked to infer their meaning. At another activity, students were assigned some sentences from the target corpus tool with underlining idioms and asked how idioms were contextualized and used in sentences. As for practicing pragmatics, students were presented with small dialogue examples taken from the target corpus tool, ask to do situation analysis, explore meaning and level of sincerity of apologies.

In addition, students were also assigned two error correction activities. In the first error correction activity, students were given a paragraph including a number of sentences with some errors and asked to correct them by using the target corpus tool. The activity was conducted with the whole class. In the second one, students were given a paragraph including a number of sentences with some errors again, but this time, students were asked to correct the errors on their own by using the target corpus tool. Since students would ask to correct the mistakes in writings through using corpus in the study, it was considered to be essential to practice such kinds of activities before treatment.

Data Collection Procedure

Before the experiment was conducted, necessary permission procedures with Hatay Mustafa Kemal University administration were implemented. 2017-2018 academic year spring term's Advance Reading and Writing II course syllabus offered by the department of English Language Teaching was checked to determine which essay types were covered during the study. Then, the PowerPoint presentation on corpus use, corpus-based activities, corpus notes, written assignments, and written interview questions were prepared. Finally, the experiment was conducted. Figure 3 summarizes the data collection procedure and Figure 4

summarizes the corpus training procedure in the followings:

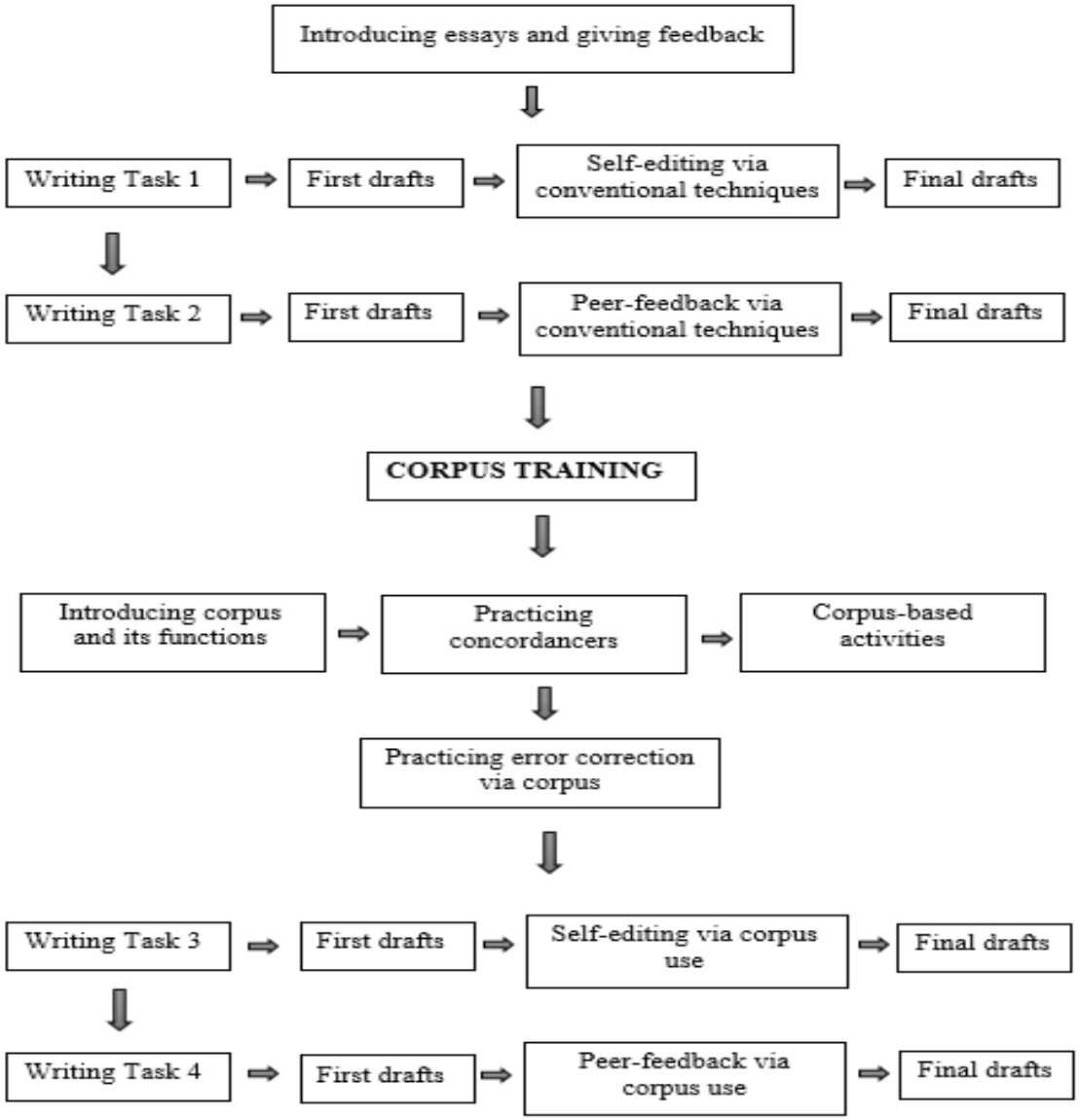


Figure 3. Data collection procedure

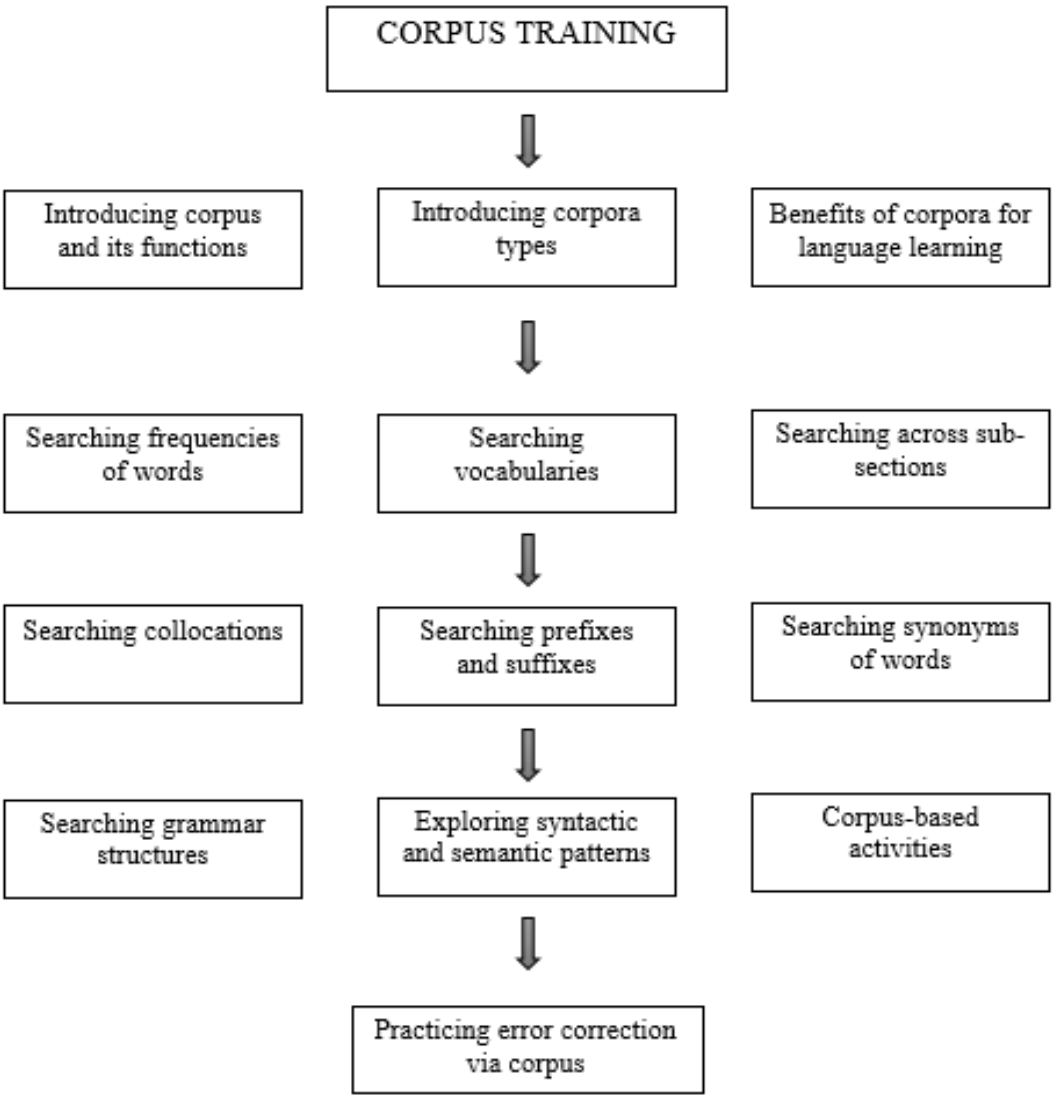


Figure 4. Corpus training procedure

Pre-Experiment Session

After the required permission was granted, and materials and instruments were prepared, the study was initiated with training learners to essay writing in general. Students were taught how to outline an essay in prewriting stage and then how to write an essay. Before practicing essay writing, students were introduced a number of essay types such as expository, compare-contrast essay, argumentative essay. However, the argumentative essay was given more focus since the class would proceed with argumentative essay writing in the following weeks. In that regard, firstly, it was mentioned what argumentative essay was. Then, students

were taught how to outline and write an argumentative essay, and given various argumentative essay examples to analyze the elements of argumentative essays. In order to foster their understandings of argumentative essay, students were asked to look at a sample outline and analyze the elements of argumentative essay, read a sample argumentative essay and underline 'thesis statement', 'pro idea 1', 'pro idea', and 'refutation'. After necessary instruction was presented, students were asked to draw an outline of the assigned topic. After discussing their outlines, students were asked to write an argumentative essay on the assigned topic. In the process of essay writing, the instructor guided the students to utilize their outlines, examined their writings one by one, and made suggestions on the structure and organization of the essay in the frame of argumentative essay structure when it was necessary.

Once students wrote argumentative essays on the given topic, they were taught to give feedback to any written product. In that regard, students firstly were mentioned what feedback was, how they could give feedback to a written product, which criteria they were supposed to focus on when giving feedback. It was covered that students were required to focus on content, organization, vocabulary, language use, and mechanics when giving feedback to an essay. It was mentioned that when students focused on the content of an essay, they were required to check central and supporting ideas in essays; that is, whether the essay had a specific central idea, it had clear and relevant details, and whether supporting ideas were well elaborated on central ideas. It was also acknowledged that students were required to look at whether essays were logically organized and well-structured, the expression was fluent and coherent. Furthermore, students were informed that they needed to focus on the range of vocabulary, vocabulary choice and usage, correct use of vocabulary, and register of vocabulary. As for language use, students were taught that they required to check essays if they had a wide range of sentence structures, sentences structures were correct, complex, and effective, sentences were formed with correct subject-verb agreement, tense, and word order, articles, pronouns, and prepositions were used correctly, and effective and wide range of transitions and coordinators were used. As a final component, students were required to focus on mechanics; whether the use of punctuation marks were correct and effective, vocabulary items were spelled correctly, first letters were capitalized, and paragraph indentation was made.

After necessary instruction was given to students, they were shown various feedback samples given to written products, and another paragraph was analyzed in regard to whether

it had errors and mistakes, what kinds of errors and mistakes were done, how the mistakes and errors could be corrected. Then, they were asked to practice what they had learned through asking them to give feedback to a writing paragraph given to students for the purpose of the task and to correct errors in the paragraph in groups in lines of the assigned criteria. The instructor examined the feedbacks given by students one by one and discussed their strengths and deficiencies. For further practice, students were asked to give feedback to their own writings and correct their mistakes on their own. In the process of feedback training, the instructor guided the students, examined their feedback one by one, and made suggestions when it was necessary.

After essay writing and feedback training, students were asked to do their first writing task. Students were assigned an argumentative essay to read and discuss. In that regard, Herman (1986) discusses the effectiveness of providing text as a pre-writing activity and suggests that text can provide a skeletal model to students for their own writings. Similarly, Kreshen (1984) argues that providing students extensive readings promotes students to become competent writers. Therefore, students were asked to do the assigned reading before the class. In class time, the assigned reading was reviewed by identifying main and major ideas, and arguments and counter-arguments in the reading. Then, the arguments and counter-arguments were discussed through guided questions. After the discussions at the first hour of the class time, students were assigned a writing topic to write their first drafts of the argumentative essay and asked to do an outline. Then, students wrote their first drafts during the other two hours of the class time. In those two hours, they were not allowed to consult any source while writing their first drafts. At the end of class, each of the students' first drafts was taken two copies and one copy was given to students and the other was kept by the instructor. Students were also informed that they would bring any source they were going to utilize in editing their own writings. Students edited their own writings and corrected their errors in the copied version of the writing tasks through using conventional techniques such as utilizing online dictionaries, sources, etc., and then they wrote their final drafts the other week. At the end of the first writing task, students delivered their first drafts, the copied one at which self-editing was made, and the final drafts to the researcher.

At the second writing task, students were assigned reading and asked to do the reading before the class. It was then reviewed and discussed in class. After the discussions at the first hour of the class time, students wrote their first drafts on the assigned topic during the other two hours of the class time. In those two hours, they were not allowed to consult any source while

writing their first drafts. At the end of class, each of the students' first drafts was taken two copies and one copy was given to students and the other was kept by the instructor. Students were also informed that they would bring any source they were going to utilize in giving feedback to first drafts of each other's writings. The other week, the researcher distributed their first drafts to class randomly for peer correction and it was paid attention that any students did not have their own writing. Then, students were asked to give feedback to their peers' writings and correct errors in the copied version by utilizing conventional techniques. After giving feedback, students took their own writings and they wrote their final drafts in lines with their peers' feedback. At the end of the second writing task, students delivered their first drafts, the copied one at which peer feedback was given, and the final drafts to the researcher.

Experiment Session

After students had completed their two writing tasks, they had corpus training to learn how to use corpus tools as a reference tool in writing for two weeks. Firstly, they have introduced what corpus was, its characteristic features, and some corpora tool examples such as COBUILD, MICASE, BNC, COCA, etc. via PowerPoint presentation. Regarding its features, it was also discussed how corpora can be utilized in language learning. After general information, students were introduced the corpus tool Corpus of Contemporary American English (COCA) and it was shown on the internet by visiting its official site. It was informed that it could be used without any cost, and its sections and subsections were introduced separately to students.

In that regard, students were introduced how to insert PoS. In other words, students were informed that they could search collocations of any word by clicking PoS section and selecting collocation type. It was also mentioned that they could sort or limit their search; in that, they could select whether their searches were sorted by alphabetical, frequency, or relevance. In addition, students were introduced that they could limit the number of results, determine if their search words were grouped by word form, all forms of words, or part of speech for words by clicking on the options section.

After introducing COCA in detail, students were taught how to search the frequency of words. They were shown that word frequency could be searched in general or in spoken, fiction, magazine, newspaper, and academic text types separately. After informing students,

it was discussed how to benefit in language learning and interpreted that they could determine whether words they were searching was more appropriate to academic, spoken, fiction, magazine, or newspaper language. Giving examples to word frequency through screenshotting of concordance lines, its occurrences were presented in general as well as in separate to text types. It was also asked students to tell any word about which they were curious to demonstrate how to search their frequencies at COCA.

Collocations were also given attention in class. It was first discussed what collocation was and various examples were given to students with the aim of fostering their understandings of collocation. After necessary background knowledge was provided, students were taught how to search collocations of a word at COCA through demonstrating screenshots taken from the target corpus tool to get familiar with corpus search. Then, students were asked to say any word and its collocations were searched. Such collocations as noun, verb, adjective, adverb, preposition, etc. were showed one by one. It was also presented how to determine whether collocations proceed or follow the word in the presentation. After students had an idea on using corpus in language learning, its potential benefits were discussed in the class. In the discussion, students got familiar with the term 'Data-driven learning'. It was informed what Data-driven learning referred and to how it could be applied in language class briefly.

For further practice, students were asked to guess the top 5 object nouns that collocate with the given word. After students' guesses were obtained, the result was shown at COCA. Then, students were asked to put them into three categories with the aim of promoting them to improve their interpreting and making inference skills. Therefore, students were asked to categorize the results of object noun collections of the given word in order to ensure that they understood its relevant issue. For that purpose, students were also asked to guess the word from collocates of a word. After students' guesses, the requested word was acknowledged to students and it was searched again to check collocations. In addition, students were asked to guess the top 5 prepositions that collocate with the given word. After the guesses, collocations of the given word were searched and concordance lines of the word together with collocations were shown to students with the aim of asking students to their meanings. In that regard, students examined the concordance lines and inferred their meanings from sentences. In addition, how to search prefix and suffix was covered in class. Firstly, students were informed that they could search for prefixes and suffixes of any word and then taught how to search them. After the instructions, students were asked to guess suffixes and prefixes of given words. Then, the results were demonstrated at the target corpus

tool.

Students were taught how to search synonyms of any word by demonstrating at COCA after informing them of the meaning of synonyms. The synonyms of various words taken from students were searched for practicing. Then, students were given synonyms of a word and asked to guess the word. After students had guessed, the requested word was informed to students and it was searched again to check synonyms. As for grammar structures, how to search specific grammar structures were covered through demonstrating at COCA were informed. Then, students were asked to examine the sentences obtained from concordance lines and guess the differences between two specific grammar structures. After the guesses, they were discussed in regard to how to use those grammar structures, their places, and how the following words were used in sentences. It was aimed to promote students to interpret the concordance lines and infer their structures by giving examples.

For further practicing to improve students' certain skills, students were shown concordance lines including highlighted words and it was discussed their meanings and syntactic structures in detail through examining sentences from concordance lines. Students were also asked to examine the sentences taken from concordance lines and including some phrasal verbs, and infer their meaning form the sentences. The phrasal verbs given at sentences were searched at COCA and other sentences were demonstrated to students in order to check their guesses. Furthermore, students were asked to analyze the concordance lines and see how idioms are contextualized and used in sentences. In addition, students were asked to analyze other concordance lines, and decide on their meanings and level of sincerities. As it was mentioned before, it was aimed to develop students' certain skills and apply corpus use effectively in language learning for the purpose of the study.

Once sentence-level analysis through concordancing was practiced in class, students were given a paragraph with various kinds of errors and asked them to find and correct the errors by using the target corpus tool. Before the error correction activity, the PowerPoint presentation was shared with students and corpus notes were distributed to them as reminders that they could utilize at error correction activity. Students were given a paragraph including a number of sentences with some errors. Firstly, students spotted the errors in sentences and discussed how to correct them through using corpus as the whole class in the guidance of the researcher. Every sentence with errors was corrected one by one through searching concordance lines. Since such kind of activity was considered to be quite essential and effective for the purpose of the study, students were assigned another paragraph including

sentences with various errors. Students worked on the given paragraph at the computer lab this time since it was aimed for students to use the corpus tool and correct the errors in pairs. In the activity, the researcher observed each pair how effectively they use the target corpus tool and guided them only in corpus use when it was necessary.

Once students were trained to corpus use, they were assigned an argumentative essay to read and discuss. In class time, students reviewed the assigned reading and they started to write their first drafts without using any source to consult their writing problems. At the end of class, each of the students' first drafts was taken two copies and one copy was given to students while the other was kept by the instructor. Students were also informed that they were going to study at the computer lab the other class. They were also asked to bring their laptops in case some computers at computer lab could be out of order or they could reach the daily limit of searching at COCA. Students edited their own writings and corrected their errors in the copied version through searching their errors at COCA, and then they wrote their final drafts the other week. At the end of the third writing task, students delivered their first drafts, the copied one at which self-editing through corpus use were made, and the final drafts to the researcher.

As an example to students' corrections by utilizing corpus in self-editing task, one of the students wrote the sentence 'For centuries, many artists have already done that'. While s/he was reviewing her/his writing, s/he realized that the verb of the sentence (do) did not give the real meaning; therefore, s/he extended her/his research by searching the synonyms of the verb at COCA. S/he examined all the results shown at COCA and their concordancers. Finally, s/he corrected the sentence as 'For centuries, many artists have already achieved that'. As another example, another student wrote the sentence "If our friend uses some drugs, we can dissuade" and s/he might not make sure whether the verb should be followed by an adverb or not. Therefore, s/he searched the verb at COCA to find the matching strings. Then s/he could be able to infer that the verb in the sentence should be followed by an adverb by analyzing the concordancers. Finally, she corrected the sentence as 'If our friend uses some drugs, we can dissuade him/her'.

As for final writing tasks, students were assigned another argumentative essay to read and it was discussed at the class through guided questions in order to elaborate on and make sense of the topic. After the discussions and outlining at the first hour of the class time, students wrote their first drafts on the assigned topic during the other two hours of the class time. In those two hours, they were not allowed to consult any source while writing their first

drafts. At the end of class, each of the students' first drafts was taken two copies and one copy was given to students while the other was kept by the instructor. Students were also informed that they were going to study at the computer lab he other week and asked to bring their laptops in case of any unexpected situations mentioned before. The researcher distributed the first drafts to their peers in class for peer correction and it was paid attention that any students did not have their own writing. Then, students were asked to give feedback to their peers' writings and correct errors in the copied version by using the target corpus tool. After giving feedback, students took their own writings and they wrote their final drafts in line with their peers' feedback. At the end of the fourth writing task, students delivered their first drafts, the copied one at which peer feedback through corpus use were given, and the final drafts to the researcher. The researcher guided students to only use the target corpus tool when it was necessary while students utilized to the target corpus tool in error correction.

As an example to students' corrections by utilizing COCA in the peer-feedback task, one of the students wrote the sentence 'If you spend in bad purposes, you waste it' in her/his first draft. While her/his peer was reviewing the first draft, the peer corrected the preposition error by searching which prepositions were collocated with the verb 'spend' in the 'collocates' part and analyzing the concordancers. After the search at COCA, the peer corrected the sentence as 'If you spend on bad purposes, you waste it'. As another example, one of the students wrote the sentence 'Don't be afraid of be ambitious in your goals' in her/his first draft. While her/his peer was reviewing the first draft, the peer corrected the gerund-infinitive error. In correction, the peer firstly searched which prepositions were collocated with the verb 'afraid' and clicked on the preposition 'of'. Then, the peer examined the sentences from concordancers and could be able to infer that the verb followed by the 'be afraid of' ought to be a gerund. Finally, the peer corrected the sentence as 'Don't be afraid of being ambitious about your goals'.

Post-Experiment Session

Once students had completed their writing tasks, the written interview survey was distributed to participants in order to take their opinions about corpus and corpus use in process writing. It was informed that their answers would be anonymous; therefore, they could write what they really thought without any hesitation in answering the questions. Then, it was ensured that students did not write their names on paper and answered all questions. After students

completed written interviews, they were collected.

Data Analysis

Students' each first and final draft was scored by using the holistic rubric with the aim of finding out whether corpus use as DDL tool improves Turkish EFL learners' writing performance. Once students' drafts were scored, the normality test via SPSS (version 22.0) was applied. Based on the result of the normality test, it was determined that data were not normally distributed. Therefore, Wilcoxon signed-rank test from non-parametric tests was implemented to compare the writings. Wilcoxon signed-rank test is implemented for matched-pair data which does not show normal distribution (Dörnyei, 2007, p. 230). The scores obtained from final drafts of first and third writings compared through the Wilcoxon signed-rank test with the aim of finding out whether corpus had an effect on students' writing performance in self-editing tasks. In a similar vein, final drafts of second and fourth writings compared with the aim of finding out whether corpus had an effect on students' writing performance in peer-feedback tasks. In addition, in order to ensure the reliability of each score, Dörnyei (2007, p. 51) offers an approach to establish reliability in scoring; that is, the correlation between two different raters' scores can be calculated. In that regard, two raters scored the students' every writing, the average of the scores given by two raters were regarded as the final scores, and quantitative analysis was conducted through the final scores.

In order to explore how corpus as a DDL tool contributes to process writing, the content analysis method was utilized to find out how the students benefited from the target corpus tool in the writing process. In content analysis, the researcher makes categorization to define a phenomenon, to get better a understanding, and generate knowledge (Cavanagh, 1997). The researcher also comes to a decision by making interpretation with the aim of putting the related things in the same category in inductive content analysis (Dey, 1993, p. 102).

In this vein, students' first and third writings were examined to find out which errors students had corrected through corpus use in self-editing tasks. Types of errors were categorized for each writing. Students' error corrections were examined by looking at which errors students had corrected properly and which ones were false-repairs as well as which errors students did not make any correction for each writing task. Then, the two categorizations and examinations were compared to explore the effect of corpus use in self-editing tasks. Similarly, second and fourth writings were examined to explore which errors students had corrected through corpus use in peer-feedback tasks. Types of errors were categorized for

each writing. Students' error corrections were examined by looking at which errors students had corrected properly and wrongly in correcting their peers' writings. Also, it was figure out that which errors students had missed in correcting errors of their peers for each writing task and which errors that peers corrected students did not agree with. Then, categorizations and examinations for each writing were compared to explore the effect of corpus use in peer-feedback tasks. The inter-rater reliability method was utilized in order to ensure the reliability of each score. Inter-rater reliability refers to the degree in which two raters give separate estimates to same phenomenon. In that regard, second expert made categorization from 30% of students' writings. In calculating the percentage of reliability, Miles and Huberman (1994)'s formula (reliability = consensus/consensus + disagreement) was conducted.

As for the written opinion survey, content analysis was conducted to explore Turkish EFL learners' opinions about corpus use as a DDL tool. Answers of each written interview questions were examined to figure out students' opinions, how the students benefit from the target corpus tool in the writing process, and the possible functions of the students' corpus use as a DDL tool in self-editing and peer-feedback tasks in process writing.

Conclusion

This chapter has reviewed the research methodology to figure out the effectiveness of corpus use as a DDL tool in self-editing and peer-feedback tasks in process writing, to how learners make use of the corpus in evaluating their own and one another's writings and to explore Turkish EFL students' opinions about corpus use as a DDL tool. It has attempted to explain the research design, setting in which the study was conducted, participants, the data collection instruments and materials, the detailed description of the experiment conducted for the purpose of the study, and how data were analyzed. The following chapter will present the findings obtained from qualitative and quantitative analysis in detail.

CHAPTER IV

FINDINGS AND DISCUSSION

Introduction

This study was conducted to explore the effectiveness of corpus as a DDL tool in self-editing and peer-feedback tasks in process writing. It aimed at comparing the participants' writings edited through conventional techniques and corpus use. In addition, this study examined how learners make use of the corpus in evaluating their own and one another's writings. Finally, the opinions of the participants about corpus use as a DDL tool were explored in the study.

The answers to the following questions were sought in the study:

1. Does corpus use as Data-Driven Learning tool improve Turkish EFL learners' writing performance?
2. How does corpus as a Data-Driven Learning tool contribute to process writing?
3. What are Turkish EFL learners' opinions about using corpus as a Data-Driven Learning tool?

Different analysis was conducted to answer the research questions for the purpose of the study. In order to give a detail explanation of the findings, each research question was addressed separately in this chapter. In addition, the methods utilized in the analysis of the data were given in the detail and the data are interpreted in the lights of the findings.

Findings

In order to represent the findings of the study, the findings of each research question were addressed separately with their discussions in the followings:

First research question

The first research question was addressed to figure out whether corpus use as a DDL tool improves students' writing performances in self-editing and peer-feedback tasks. Therefore, students' writings were scored utilizing a holistic rubric. In order to ensure the reliability of scoring, two raters scored the students' every writing, averages of the scores given by two raters were regarded as the final score, and quantitative analysis was conducted on the final scores. After ensuring the reliability of the scores, the normality test via SPSS (version 22.0) was implemented. Based on the result of the normality test, it was determined that data were not normally distributed. Therefore, the Wilcoxon signed-rank test from non-parametric tests was implemented to compare the writings. In comparing the students' writings, it was taken attention to compare the final drafts in self-editing tasks and compare the final drafts in peer-feedback tasks separately.

Findings of the first research question

The findings of the Wilcoxon signed-rank test were presented in the followings:

Table 1

Findings of the Wilcoxon Signed-Rank test in regard to self-editing tasks

Tests	Measurement	N	Mean Rank	Sum of Ranks	Z	P
Content	Negative ranks	5	14,00	70,00	-3.547	,000
	Positive ranks	24	15,21	365,00		
	Ties	32				
Organization	Negative ranks	5	9,50	47,50	-2,748	,006
	Positive ranks	17	12,09	205,50		
	Ties	39				
Vocabulary	Negative ranks	5	18,00	90,00	-4,323	,000
	Positive ranks	31	18,58	576,00		
	Ties	25				
Language Use	Negative ranks	8	15,00	120,00	-2,611	,009
	Positive ranks	22	15,68	345,00		
	Ties	31				
Mechanics	Negative ranks	5	12,00	60,00	-2,711	,007
	Positive ranks	18	12,00	216,00		
	Ties	38				
Total	Negative ranks	7	20,71	145,00	-4,966	,000
	Positive ranks	45	27,40	1233,00		
	Ties	9				

*Based on negative ranks

As shown in Table 1, with reference to students' total scores obtained at self-editing tasks, it can be reported that there was a significant difference between the use of conventional techniques and corpus use as a DDL tool in favor of corpus use ($p<0,05$). Depending on traits of organization, content, language use, vocabulary, and mechanics, it was seen that there was a significant difference between the use of conventional techniques and corpus use at all traits in favor of corpus use as a DDL tool ($p<0,05$).

Table 2

Findings of the Wilcoxon Signed-Rank test in regard to peer- feedback tasks

Tests	Measurement	N	Mean Rank	Sum of Ranks	Z	p
Content	Negative ranks	8	10,50	84,00	-1,225*	,221
	Positive ranks	13	11,31	147,00		
	Ties	40				
Organization	Negative ranks	10	10,50	105,00	-1,091*	,275
	Positive ranks	13	13,15	171,00		
	Ties	38				
Vocabulary	Negative ranks	3	14,00	42,00	-4,487*	,000
	Positive ranks	29	16,76	486,00		
	Ties	29				
Language Use	Negative ranks	3	13,00	39,00	-4,288*	,000
	Positive ranks	27	15,78	426,00		
	Ties	31				
Mechanics	Negative ranks	5	8,00	40,00	-1,291*	,197
	Positive ranks	10	8,00	80,00		
	Ties	46				
Total	Negative ranks	13	20,46	266,00	-4,000*	,000
	Positive ranks	40	29,13	1165,00		
	Ties	8				

*Based on negative ranks

Referring to students' total scores obtained at peer- feedback tasks presented in Table 2, it can be indicated that there was a significant difference between the use of conventional techniques and corpus use as a DDL tool in favor of corpus use ($p<0,05$). Depending on traits of organization, content, and mechanics, it was seen that there was no significant difference between the use of conventional techniques and corpus use as a DDL tool ($p>0,05$). On the other hand, as for the traits of language use and vocabulary, it was observed that there was a significant difference in favor of corpus use as a DDL tool ($p<0,05$).

Discussion of the first research question

The findings regarding the effect of corpus use as a DDL tool presented above. In that regard, the findings of Wilcoxon Signed-Rank test indicated that there was a significant difference between the use of conventional techniques and the use of corpus as a DDL tool in students' total writing scores in self-editing and peer-feedback tasks. Therefore, it could be stated corpus use has a positive effect on students writing performances compared with conventional techniques. This could be due to the fact that corpus provides students the authentic language. In that way, it can encourage students to raise their language awareness; in that, students can get more familiar with the form and functions of the target language by examining the data given by the corpus. Therefore, they have a chance to discover the target language on their own. Once they start to discover the target language, they start to notice the differences between the language they produce and authentic language and notice their knowledge gap with the help of corpus use. In that regard, when correcting their errors utilizing corpus as a DDL tool in their writing processes, they may notice their deficiencies in their writings and have attempted to use the target language as native speakers use. This attempt as a result of utilizing the corpus as a DDL tool may be the reason for the positive effect of corpus use on students' total writing scores.

As for the traits, it was observed that corpus had a positive effect on the traits of organization, content, language use, vocabulary, and mechanics in self-editing tasks. As for peer- feedback tasks, it was seen that corpus had a positive effect on only the traits of vocabulary and language use. Even though it could be stated that corpus provides authentic data in listing sentences, students may not figure out the knowledge of paragraph organization or essay organization by examining the corpus data. Corpus also provides students to language itself; therefore, they may not be sufficient to provide ideas to students to be elaborated on. In addition, it does not show any data when vocabulary items are misspelled.

On the other hand, the findings of the Wilcoxon signed-rank test in self-editing tasks indicates corpus use had a positive effect on all mentioned traits even though it was hypothesized that corpus use as a DDL tool does not make a significant difference in the traits of content, organization, and mechanics. This could be because students discover the authentic language itself through corpus search. Examining authentic data by corpus encouraged students to do their own researches about language features; and consequently, it might encourage student autonomy. Even though it was hypothesized that corpus does not have direct effect on the traits of content, organization, and mechanics, urging students to do their own researches and promoting students autonomy could be reasons for their more

delicate works on their writings; and therefore, they might be reasons for the positive effect on all mentioned traits in self-editing tasks.

Looking at the findings, it was observed that corpus use as a DDL tool made a significant difference in the trait of vocabulary. Conventional techniques generally provide only one one-word Turkish translation without presenting them in a context. Even though students might find the direct transition of searched vocabulary, they could not figure out which meaning could be used in which situation. In other words, they could not establish semantic relationships by exposing a list of one-word Turkish transitions. In addition, those kinds of sources do not provide vocabulary use; that is, they do not provide the knowledge of their position, which words are proceed or follow to which vocabulary belongs to. Therefore, it could be argued that one of the major lacks of conventional techniques is contextualization; in that, they generally ignore cross-linguistic differences in conceptual classification and fail to encourage students to establish semantic relationships.

On the other hand, the findings revealed that corpus had a positive effect on students' vocabulary use. Even though students might have affected by their first language, corpus provides them a contextualized and authentic language. In addition, corpus provides various examples to students. Searching at corpus, they might explore synonyms of vocabulary items and which words they generally collocate with; thus, they could have a guess to their semantic features. They may also examine vocabulary in sentences and explore their meanings and forms in sentences. Exposing to authentic language with comprehensive examples, students had a chance to examine different meanings of vocabulary with their usages. In addition, analyzing sentences in regard to vocabulary use, they might be aware of what kinds of words they were collocated with, what different functions vocabulary have, their other forms, and their positions in sentences. Searching synonyms of vocabulary items, they might aware of the slight differences in their meanings in a contextualized way. Therefore, they could more effectively establish semantic relationships of vocabulary in a context and avoid the influence of their first language. In addition, students could search vocabulary in accordance with different genres and registers as well as different discourses like academic discourse and they had a chance to figure out appropriate usage of searched vocabulary in various discourses. Therefore, it could be indicated that corpus use as a DDL tool had a positive effect on the trait of vocabulary.

In addition, corpus use as a DDL tool had a positive effect on the trait of language use. This could be owing to the fact that corpus provides the frequency distributions of language units and functions of grammar structures in various context. Conventional techniques generally

provide grammar rules or patterns in a deductive way; that is, they generally give the rule of grammar structure and provide a few examples. Therefore, students do not have an opportunity to examine the grammar structure in various contexts; and consequently, they could not figure out a full description of English. In addition, conventional techniques have generally neglected some areas of English syntax. Therefore, grammar is mostly presented as incomplete or misleading in conventional techniques. On the other hand, students discover grammar from authentic data by utilizing corpus as a DDL tool. Corpus provides students authentic data to be examined and figured out grammar rules or patterns with their own researches. Therefore, they are encouraged to raise their "grammar consciousness" (Rutherford, 1987). In addition, students can recognize the use of grammar structures in various context due to the comprehensible data provided at corpus and have an opportunity to learn all areas of English syntax. Thus, they see a complete English in the authentic context. Regarding those possible reasons, it could be reported that corpus use as a DDL tool had a positive effect on students' language use compared with conventional techniques.

Second Research Question

In analyzing the second research question, the content analysis method was utilized to find out how students benefited from the target corpus tool in their writing process. In that regard, students' every writing was analyzed, and it was tried to figure out what kinds of errors students corrected using conventional techniques and what kinds of errors students corrected using corpus as a DDL tool in self-editing tasks. As for peer-editions tasks, it was tried to determine what kinds of errors students corrected using conventional techniques and what kinds of errors students corrected using corpus as a DDL tool. In addition to students' error correction, the kind of errors students that students did not make any correction was examined. Then, the categorization for each writing was compared to explore the contribution of corpus use in self-editing and peer-feedback tasks. In order to ensure the reliability of categorization, another expert made categorization form 30% of writings. Miles and Huberman (1994)'s formula (reliability = consensus/consensus + disagreement) was conducted to calculate the percentage of two experts' consensus. In this vein, the consensus between two experts on the categorization was 77%.

Findings of the second research question

Categorization of each writing task was presented in the followings:

Table 3

The kinds of errors students made and the frequencies of their corrections, false repairs, and no corrections using conventional techniques in self-editing tasks

Category	Thematic Category				Sample Key Terms
		Correction	False-repairs	No Correction	
Organization	Content	13		45	
	Expression	7		49	
	Title	1			
Grammar	Preposition	22	3	70	For-to
	Tense	26	2	50	Forced-would force Is effect
	Agreement	25	5	44	It destroy(s)
	Sentence formation	9	2	75	People so indolent
	Article	21	4	37	a-an-the
	Pronoun	10	1	17	It-they
	Clause	3	1	12	People which - who
	Infinitive-Gerund	2		7	Try to discovering - discover
	Active-Passive	2		7	You are driving – driven by your ambitions
	Modals	4		2	Could-had to Could-were able to
	Comparative	2		4	
	Superlative	2			This is (the first) step to..
Vocabulary	Verb	20	5	160	Sight-see
	Word form	35	2	60	Childs-children Intelligent-intelligence
	Noun	20	1	74	Words-opinions Trouble-suffer
	Linking words	7	2	58	So – but
	Adverb	5	3	34	Beside-next to
	Adjective	4		36	Important-essential
Mechanics	Spelling	22		28	Thing-thibk Sociaty
	Capitalization	7		31	
	Punctuation	8	2	71	coma

Table 3 shows the kinds of errors students corrected, the kinds of errors which were false-repairs, and the kinds of errors students made no correction using conventional techniques in the self-editing task. Regarding Table 3, 1268 errors were made in total; approximately 21% of those errors were properly corrected and nearly 2% of them were false-repairs; however, approximately 75% of the errors were not corrected using conventional techniques. Therefore, it can be said that students had trouble in correcting their own errors using conventional techniques in the self-editing task. This could be because students might not be confident enough in their language use, and therefore, they may not find and correct their mistakes. Also, sources from which they benefited in correcting errors might not provide

comprehensible data for error correction.

Regarding the categories mentioned in Table 3, it can be stated that students made errors related to the categories of organization, grammar, vocabulary, and mechanics. When errors were analyzed in regards to categories, it can be indicated that approximately 9% of the errors were related to the organization of writings, nearly 35% were grammatical errors, roughly 41% were related to vocabulary selection and use, and approximately 13% were mechanic errors. Thus, it can be said that students mostly had difficulty in using grammar and vocabulary in their writing tasks.

As for the corrections of errors in regards to the categories, it can be determined that roughly 18% of errors related to the category of 'organization' of writings were properly corrected while 81% of organization errors were not corrected at all. As for the grammatical errors, 27% of them were properly corrected, 3% of them were false-repairs, and 68% of errors were made no correction. Regarding vocabulary errors, 17% of them were properly corrected, 2% of them were false-repairs, and 80% of vocabulary errors were not corrected at all. When it comes to mechanic errors, it can be observed that 20% of them were properly corrected, 1% were made incorrectly, and 77% of them were made no correction. Thus, it can be inferred that students mostly corrected their grammatical errors when editing their own writings.

When errors were analyzed with respect to the thematic categories, Table 3 presents that approximately 50% of organizational errors were related to the content of writings. Looking at the data in regards to the correction rate of content errors, 22% of the content errors were properly corrected while 77% of them were made no correction. On the other hand, roughly 48% of organizational errors were related to expression of students at writings. In that regard, only 12% of errors were corrected while 87% were not corrected using conventional techniques. Therefore, it can be concluded that students more frequently corrected their content errors using conventional techniques in self-editing tasks.

When grammatical errors of participants were examined, roughly 20% of them were prepositional errors, roughly 18% were related to sentence formation, approximately 16% of them were tense errors, nearly 15% were agreement errors, approximately 13% of them were article errors, nearly 6% were pronoun errors, nearly 3% were clause errors, and the rest were related to infinitive-gerund, active-passive, modals, and comparative-superlative. Looking at the errors in regards to thematic categories of grammar, it can be inferred that students mostly had difficulty in using appropriate prepositions, tenses, subject-articles, and

agreements and sentence structures in their writings. Also, the corrections of the errors were highly low; that is, 23% for prepositions, 33% for tense, 33% for agreement, 33% for article, 11% for sentence formation.

As for vocabulary errors, 35% were related to verbs, 18% were related to word form, 18% were related to noun, 12% were related to linking words, 7% were adverb errors, and 7% were adjective errors. In this vein, it can be indicated that students mostly had trouble in using appropriate verbs and deciding appropriate word form in their writings. In addition, looking at the corrections of errors, it is seen that students had also trouble in correcting their vocabulary errors using conventional techniques: correcting 10% for verb, 36% for word form, 21% for noun, 10% for linking words, 11% for adverbs, and 11% for adjectives.

When it comes to mechanic errors, nearly half of the errors were punctuation errors, 28% were spelling errors, and 21% were capitalization errors. Analyzing the corrections of students, it was revealed that only 9% of punctuation errors and 18% of capitalization errors were corrected. In comparison to those components, students made relatively more corrections in spelling mistakes.

Table 4

The kinds of errors students made and the frequencies of their corrections, false repairs, and no corrections using conventional techniques in peer- feedback task

Category	Thematic category				Sample Key terms
		Correction	False-repairs	No correction	
Organization	Content	27		30	
	Expression	10		46	
	Title	1			
Grammar	Preposition	34	6	93	In-at In-for
	Tense	34	5	44	In the past, it is
	Agreement	38	5	28	Thoguths was
	Sentence formation	15	2	65	Not only we do Object missing
	Article	11		39	a-an-the
	Pronoun	3		16	Anyone-everyone
	Gerund-infinitive	6		10	Essential to becoming
	Clause	4	1	9	If – if only
	Modals	1	2	7	Can Should
	Active-passive	2	1	3	
	Comparative	1		2	baddest
Vocabulary	Verb	11	1	178	Become-begin
	Word form	55	2	49	Life-lives Wealth-wealthy Success-succeed
	Noun	10		45	The people – the life of people
	Adjective	8	3	47	Good-right
	Linking words	8		44	But-however
	Adverb	4	1	24	Whether-either
Mechanics	Spelling	22		9	Pease-peace
	Capitalization	14	2	21	
	Punctuation	8	1	93	Coma Dot

Table 4 presents students' errors, and the frequencies of errors students corrected properly and in a false way, as well as the kinds of errors students made no correction using conventional techniques in peer-feedback task. Depending on Table 4, 1261 errors were made in total; approximately 25% of those errors were properly corrected and nearly 2% of them were false-repairs; however, approximately 71% of the errors were not corrected using conventional techniques. Therefore, it can be said that students did not correct most of their peers' errors using conventional techniques in peer- feedback tasks.

Regarding the categories mentioned in Table 4, it can be stated that students made errors related to the categories of organization, grammar, vocabulary, and mechanics. When errors were analyzed in regards to categories, it can be indicated that approximately 9% of the errors were related to the organization of writings, nearly 38% were grammatical errors,

roughly 38% were related to vocabulary, and approximately 13% were mechanic errors. Thus, it can be said that students mostly had trouble with grammar and vocabulary in their writing tasks.

As for the corrections of errors in regards to the categories, it can be determined that roughly 33% of errors related to the category of organization were properly corrected while 66% of organization errors were not corrected at all. As for the grammatical errors, 30% of them were properly corrected, 4% of them were false-repairs, and 64% of errors were made no correction. Regarding vocabulary errors, 19% of them were properly corrected, 1% of them were false-repairs, and 78% of vocabulary errors were not corrected at all. When it comes to mechanic errors, it can be observed that 25% of them were properly corrected, 1% were false-repairs, and 72% of them were made no correction. Thus, it can be inferred that students mostly corrected their grammatical errors when editing their own writings.

When errors were analyzed with respect to the thematic categories, Table 4 presents that approximately 50% of organizational errors were related to the content of their writings. Looking at the data in regards to the correction rate of content errors, 47% of the content errors were properly corrected while 52% of them were made no correction. On the other hand, roughly 49% of organizational errors were related to the expression of students at writings. In that regard, 17% of errors were corrected while 82% were not corrected using conventional techniques. Therefore, it can be concluded that students more frequently corrected their content errors using conventional techniques in self-editing tasks.

When grammatical errors of participants were examined, roughly 27% of them were prepositional errors, approximately 17% of them were tense errors, roughly 16% were related to sentence formation, nearly 14% were agreement errors, approximately 10% of them were article errors, and the rest were related to pronoun, clause, infinitive-gerund, active-passive, modals, and comparative-superlative. Looking at the errors in regards to thematic categories of grammar, it can be inferred that students mostly had difficulty in using appropriate prepositions, tenses, articles, and in ensuring agreements and forming sentences in their writings. Even though students had difficulty in those grammar structures, the correction ratio of the errors was low; that is, 25% for prepositions, 40% for tense, 22% for article, 18% for sentence formation. However, it can be indicated that students corrected almost half of the agreement errors of their peers (%53).

As for vocabulary errors, 38% were related to verbs, 21% were related to word form, 11% were related to noun, 11% were related to adjectives, 10% were linking word errors, and 5%

were adverb errors. In this vein, it can be indicated that students mostly had trouble in using appropriate verbs and deciding appropriate word forms in peer- feedback task. In addition, looking at the corrections of errors, it can be seen that students generally had trouble in correcting their peers' vocabulary errors using conventional techniques: correcting nearly 5% verb, 18% noun, 15% linking word, 13% adverb, and 13% adjective errors. On the other hand, the rate of correction was 51% for word form errors using conventional techniques in peer- feedback tasks.

When it comes to mechanic errors, more than half of the errors were punctuation errors and others are respectively in the following: 21% were capitalization errors, and 18% were spelling errors. Analyzing the corrections of students, it was revealed that 7% of punctuation errors and 37% of capitalization errors were corrected. In comparison to those components, students made relatively more corrections in spelling mistakes.

Table 5

The kinds of errors students made and the frequencies of their corrections, false repairs, and no corrections using corpus as a DDL tool in self-editing task

Category	Thematic Category	Correction	False-repairs	No Correction	Sample Key Terms
Organization	Content			37	
	Expression			31	
Grammar	Preposition	57	1	47	In-among In-on
	Article	15	2	46	a-an-the
	Agreement	40	1	16	They has we…themselves
	Tense	28		25	Was believing
	Sentence formation	33		27	It wants to students race..
	Pronoun	10		8	Their
	Clause	9		8	Which-where
	Infinitive-Gerund	14		1	In terms of achieve
	Active-Passive	7		3	
	Modals	2		1	Has to Could
	Comparative			1	More hard
Vocabulary	Verb	87	1	99	Give-teach Provide-allow Exist-give
	Word form	49		36	Life-lives Lose-lost
	Noun	47		26	Education-learning Untrained-uneducated
	Linking words	17	1	15	Or-but
	Adverb	18		11	Rightly-effectively Too-as well
	Adjective	12		14	Bad-ineffective
Mechanics	Spelling	37		18	Succesful Curtain-certain
	Capitalization	5		9	
	Punctuation	19	1	93	Come Colon

Table 5 shows the kinds of errors students corrected, the kinds of the errors which were false-repairs, and the kinds of errors students made no correction using corpus as a DDL tool in self-editing task. Regarding Table 5, 1079 errors were made in total; approximately 45% of those errors were properly corrected and nearly 1% of them were corrected in a false way; however, approximately 53% of the errors were not corrected using conventional techniques. Therefore, it can be said that students corrected nearly half of their own errors using corpus as a DDL tool in the self-editing task.

Regarding the categories mentioned in Table 5, it can be stated that students made errors related to the categories of organization, grammar, vocabulary, and mechanics. When errors were analyzed in regards to categories, it can be indicated that approximately 7% of the errors were related to the organization of writings, nearly 36% were grammatical errors, roughly 39% were related to vocabulary use, and approximately 16% were mechanic errors.

Thus, it can be said that students mostly had trouble in grammar and vocabulary in their writing tasks.

As for the correction rate of errors in regards to the categories, it can be determined that there was no corrections at the category of organization. As for the grammatical errors, nearly 53% of them were properly corrected, approximately 1% of them false-repairs, and roughly 45% of errors were made no correction. Regarding vocabulary errors, nearly 53% of them were properly corrected, approximately 1% of them were false-repairs, and roughly 46% of vocabulary errors were not corrected at all. When it comes to mechanic errors, it can be observed that approximately 33% of them were properly corrected, approximately 1% were made incorrectly, and nearly 45% of them were made no correction. Thus, it can be inferred that the percentage of error correction using corpus as a DDL tool at writings was relatively higher.

When errors were analyzed with respect to the thematic categories, it can be determined that there was no correction related to the category of organization even though organization of participants' writings was not sufficiently elaborated on thesis statements. Table 5 presents 68 errors for organizational mistakes; nearly 54% of them were content errors while 45% were related to expression of their writings. However, students did not make any correction for that category using corpus as a DDL tool in the self-editing task.

When grammatical errors of participants were examined, roughly 26% of them were prepositional errors, approximately 15% of them were article errors, nearly 14% were agreement errors, approximately 14% of them were related to sentence formation, roughly 13% were related to tense, nearly 4% were pronoun errors, nearly 4% were clause errors, and the rest were related to infinitive-gerund, active-passive, modals, and comparative-superlative. Looking at the errors in regards to thematic categories of grammar it can be inferred that students mostly had difficulty in using appropriate prepositions, tenses, subject-articles, and in agreements and sentence formation in their writings. Also, the correction ratio of the errors was relatively high; that is, correcting 70% of agreement, 55% of sentence formation, 54% of preposition, 52% of tense, and 23% of article errors.

As for vocabulary errors, 43% were related to verbs, 19% were related to word form, 16% were related to noun, 7% were related to linking words, 6% were adverb errors, and 6% were adjective errors. In this vein, it can be indicated that students mostly had trouble in using appropriate verbs and deciding appropriate word form in their writings. However, the rate of corrections at vocabulary errors using corpus as a DDL tool was high; that is, correcting

46% of verb, 57% of word form, 63% of noun, 51% of linking word, 62% of adverb, and 46% of adjectives errors.

When it comes to mechanic errors, more than half of the errors were punctuation errors, 30% were spelling errors, and 7% were capitalization errors. Analyzing the corrections of students, it was revealed that 16% of punctuation errors and 35% of capitalization errors were corrected. In comparison to those components, students made relatively more corrections in spelling mistakes.

Table 6

The kinds of errors students made and the frequencies of their corrections, false repairs, and no corrections using corpus as a DDL tool in peer- feedback task

Category		Thematic category			Sample Key terms
		Correction	False-repairs	No correction	
Organization	Content			47	
	Expression			38	
Grammar	Preposition	42	5	37	Of-to In-on
	Tense	51	2	15	Will develop - develops
	Agreement	50		17	That-disappears People…yourselves
	Sentence formation	39		27	What we do? There two options
	Article	24	2	31	a-an-the
	Pronoun	17		4	Them brain – their brain
	Infinitive-Gerund	14		3	To knowing
	Clause	10	1	3	Where
	Active-Passive	4		10	All of them (were) killed by someone.
	Comparative	3		1	Easiest – easier Work hard – harder
	Modals			1	Should-must
Vocabulary	Verb	93		72	See-care Make-provide Arrive-achieve
	Word form	68		23	Effect-affect
	Noun	41		28	The world would be better **where - place**
	Linking words	21		8	Because-in order to
	Adjective	33	1	10	Jealous - insecure
	Adverb	13	1	6	Ambitious-ambition
Mechanics	Punctuation	25	1	73	Coma Semicolon
	Spelling	45		8	Roll-role
	Capitalization	2		1	

Table 6 presents students' errors, and the frequencies of errors students corrected properly and in a false way, as well as the kinds of errors students made no correction using corpus as a DDL tool in the peer- feedback task. Regarding Table 6, 1071 errors were made in total; approximately 55% of those errors were properly corrected and nearly 1% of them were corrected in a false way; however, approximately 43% of the errors were not corrected using corpus. Therefore, it can be said that students utilized the target corpus tool in correcting their peers' errors.

Regarding the categories mentioned in Table 6, it can be stated that students made errors related to the categories of organization, grammar, vocabulary, and mechanics. When errors were analyzed in regards to categories, it can be indicated that approximately 7% of the errors were related to the organization of writings, nearly 38% were grammatical errors, roughly 39% were related to vocabulary use, and approximately 14% were mechanic errors.

Thus, it can be said that students mostly had trouble in using grammar structures and using vocabulary types in their writing tasks.

As for the corrections in regards to the categories, it can be determined that there was no correction at organizations of writings. As for the grammatical errors, roughly 61% of them were properly corrected, approximately 2% of them were false-repairs, and nearly 36% of errors were made no correction. Regarding vocabulary errors, nearly 64% of them were properly corrected, approximately 1% of them were false-repairs, and roughly 35% of vocabulary errors were not corrected at all. When it comes to mechanic errors, it can be observed that roughly 46% of them were properly corrected, approximately 1% were made incorrectly, and nearly 52% of them were made no correction. Thus, it can be inferred that the ratio of corrections made by students was relatively higher and students utilized corpus as a DDL tool especially in correcting grammatical and vocabulary errors in the peer-feedback task.

When errors were analyzed with respect to the thematic categories, it can be determined that there was no correction related to the category of organization even though the organization of participants' writings was not sufficiently elaborated on thesis statements. Table 6 represents 85 errors for organizational mistakes; nearly 47% of them were content errors while 55% were related to the expression of their writings. However, students did not make any correction for that category using corpus as a DDL tool in peer- feedback task.

When grammatical errors of participants were examined, roughly 20% of them were prepositional errors, approximately 16% of them were tense errors, nearly 16% were agreement errors, roughly 15% were related to sentence formation, approximately 13% of them were article errors, and the rest were related to pronoun, clause, infinitive-gerund, active-passive, modals, and comparative-superlative. Looking at the errors in regards to thematic category of grammar, it can be inferred that students mostly had difficulty in using appropriate prepositions, tenses, articles, and in agreements and forming sentences in their writings. Even though students had difficulty in grammar patterns, the corrections of the errors were high; that is, 50% for prepositions, 75% for tense, 74% for agreement, 42% for article, 59% for sentence formation.

As for vocabulary errors, 39% were related to verbs, 21% were related to word form, 16% were related to noun, 10% were related to adjectives, 6% were linking words errors, and 4% were adverb errors. In this vein, it can be indicated that students mostly had trouble in using appropriate verbs and deciding appropriate word form in the peer- feedback task. In addition,

looking at the corrections of errors, it is seen even though students generally had trouble in vocabulary errors, they could use corpus in correcting their peers' vocabulary errors: 56% for verb, 74% for word form, 59% for noun, 72% for linking words, 65% for adverbs, and 75% for adjectives.

When it comes to mechanic errors, more than half of the errors were punctuation errors and others are respectively in the following: 3% were capitalization errors, and 34% were spelling errors. Analyzing the corrections of students, it was revealed that 25% of punctuation errors and 66% of capitalization errors were corrected. In comparison to those components, students made relatively more corrections in spelling mistakes.

Discussion of the second research question

The findings regarding the contribution of corpus use as a DDL tool presented above. Looking at the tables presenting the contribution of corpus as a DDL tool, it was observed that students made organizational errors in the self-editing and peer- feedback tasks using conventional techniques; however, students made no correction for their organizational errors in the tasks utilizing corpus as a DDL tool while students corrected their organizational errors in low percentages in the tasks using conventional techniques. It has already been hypothesized that corpus was not an effective tool for organizational errors. This could be because of the fact that corpus provides the knowledge of the language itself and their units with sentences. Examining sentences in a context, students might not figure out how to organize a paragraph or an essay and how to combine ideas to write a coherent paragraph and essay. On the other hand, students might consult books to figure out the outline of an essay or a paragraph as well as see irrelevant ideas on their own to correct their organization errors. Those possible reasons, corpus might not be effective in correction organizational errors.

Based on the findings in regards to the contribution of corpus use as a DDL tool in students' writing process, it was observed that students mostly had difficulty in using appropriate grammar patterns in their writings. Roughly 35% of students' errors were grammatical errors in the self-editing task while nearly 38% of students' errors were grammatical in the peer-feedback task before correcting their errors using conventional techniques. Similarly, nearly 36% of students' errors were related to grammar in the self-editing task while approximately 38% were grammatical errors in the peer-feedback task before correcting their errors utilizing corpus as a DDL tool. Therefore, it could be stated that students had difficulty in

using appropriate grammar structures in their writings. This could be due to the fact that students were not native speakers of English and they might transfer characteristic features of their mother tongue to their second language. In other words, they have been learning a new grammar structure; some of whose structures are different and some of which even do not exist in their mother tongue. English and Turkish had several distinctive differences in regards to their grammar structures.

Regarding the findings of second research questions, it could be observed that students mostly made prepositional errors (18%) in the self-editing task while 25% of students' grammatical errors were related to prepositions in the peer-feedback task before correcting their errors using conventional techniques. Similarly, nearly 23% of them were prepositional errors in the self-editing task while roughly 17% of them were prepositional errors in the peer-feedback task before correcting their errors benefiting from corpus as a DDL tool. Some prepositions in English (e.g., of, to, from) are functioned as case-suffixes in Turkish. Therefore, Turkish does not have a separate word for those prepositions and the functions of those prepositions were provided with suffixes. The rest of the prepositions (e.g., for, against, before) are functioned as postpositions. Those postpositions follow the word which they govern in Turkish while they proceeded with the word in English. Considering the difference usages of prepositions in Turkish and English, students may transfer their first languages into the second language and they might face difficulties in the usage of prepositions. In addition, there are some basic rules for the usage of prepositions in English which is different in Turkish. For example, three different prepositions were utilized to express time in English (e.g., at 7 o'clock, on Wednesday, in January). In addition, while some prepositions collocate with verbs in English and these prepositions can change in accordance with the units of the language they collocate with, prepositions do not have that kind of function in Turkish. Thus, students might have difficulty in selecting appropriate prepositions in their writings in regard to their function and form.

Regarding those possible reasons, students made prepositional errors in their self-editing and peer- feedback tasks in relatively high percentages. When it was looked at the correction rate of prepositional errors, students corrected their prepositional errors in the percentage of 24 in the self-editing task and in the percentage of 25 in the peer-feedback task using conventional techniques. Regarding the correction rate, it can be stated that conventional techniques were not effective in correcting prepositional errors. This could be due to the fact that conventional techniques do not provide enough knowledge of prepositions and their

usages. Conventional techniques do not explain all functions of prepositions in detail; rather they tend to provide the most common usages of prepositions with a deductive way and they might encourage students to memorize the prepositions with their functions. In addition, they generally do not explain them in a contextualized and non-native like context even though conventional techniques provide some functions of prepositions. Therefore, students might not properly have enough knowledge of prepositions and their usages and might tend to generalize common functions to all usages.

On the other hand, students corrected 54% of their prepositional errors in the self-editing task and 53% of their prepositional errors in the peer-feedback task utilizing corpus as a DDL tool. Regarding those findings, it could be indicated that corpus helped students correcting roughly half of their prepositional errors in their writing tasks which is a relatively higher percentage than those corrected using conventional techniques. This could be because of the fact that corpus provides more comprehensible data to students. Once students search prepositions, the target corpus tool lists all functions of them with sample sentences from the most commonly used one to the fewest. Exposing to authentic and contextualized language, students might explore different functions and usages of prepositions from sentences. In addition, thanks to the separate search part of corpus called 'collocation', students might have a chance to search prepositions collocate with different units of language like verbs, noun, adjective, etc. Therefore, they could make a detailed search to correct their prepositional errors.

Depending on the findings of Table 3, 4, 5, and 6, students generally made errors related to tenses in their self-editing and peer- feedback tasks. The percentage of errors in self-editing tasks was 17 while the percentage in peer- feedback tasks was 17 before correcting their errors utilizing conventional techniques. And, the percentages are respectively roughly 13% and 16% before correcting their errors using corpus as a DDL tool. Turkish has a more general focus on tenses while English has a more specific focus in regard to the number of tenses in which they include. Therefore, Turkish EFL students might have difficulty in selecting appropriate tense in their writings. In addition, English includes a separate lexicon inflected to verbs in compliance with tenses while Turkish has suffixes inflected to verbs in accordance with tenses. Therefore, students might have trouble with tenses in their writings along with selecting appropriate tenses.

Once the corrections of students were analyzed, it was seen that 33% of their tense errors were corrected in the self-editing task and 40% of them were corrected in the peer-feedback

task using conventional techniques. This could be because conventional techniques like grammar books provide general rules of tenses in English with examples in a deductive way. Even though students checked how to conjugate verbs in accordance with tenses, they might not interiorize their usages since those sources explain their usage without providing an appropriate context. On the other hand, corpus provides students various examples to show their usages within a contextualized way. Therefore, students might interiorize the usages of tenses and might be aware of their errors more effectively. This possible reason, the correction rate of students could raise utilizing corpus as a DDL tool: 52% for self-editing task and 75& for peer- feedback task.

Table 3, 4, 5, and 6 also presents that 16% of students' grammatical errors were agreement errors in the self-editing task while 14% were agreement errors in the peer-feedback task before correcting their errors using conventional techniques. And, the percentages were respectively 14% and 16% in those tasks before students corrected their errors using the target corpus tool as a DDL tool. English requires a Subject-Verb agreement to form correct sentences. In that regard, 3rd person singular (-s) applies verb and auxiliary verbs in singular subjects. Copula 'be' is conjugated in accordance with the subjects. On the other hand, Turkish applies 3rd person singular morpheme regardless of the singularity of subjects. Other differences in that regard, English distinguishes nouns as countable and uncountable. In addition to S-V agreement, Subject-Object (S-O) agreement was applied in both languages; however, English three different singular person (he/she/it) while the singular person was expressed only a pronoun in Turkish. Therefore, students might face difficulty in applying S-V and S-O agreements in their English writings.

When compared students' corrections of agreement errors in the tasks used conventional techniques and the tasks utilized corpus as DDL tool, it could be stated that corpus as a DDL tool is slightly more effective than conventional techniques (33% and 53% for the tasks used conventional techniques; 70% and 74% for the tasks utilized corpus as DDL tool). Students could generally find out the plurality of subjects by looking at plural –s and personal pronouns to apply the patterns of S-V and S-O agreements. However, English includes irregular plural forms and some pronouns that could not be understood whether they were singular or plural looking at those specific things mentioned. In that regard, conventional techniques like consulting dictionaries do not provide the knowledge of their singularity, or whether countable or uncountable. On the other hand, searching at corpus, students can easily understand whether they are singular or plural subjects by examining the sentences

and apply the patterns of S-V and S-O agreements. That slight increase in the correction rate could result from the comprehensive data provided by the target corpus tool.

The findings also represent that 13% of students' grammatical errors were related to article in self-editing while 10% were article errors in the peer-feedback task before correcting their errors utilizing conventional techniques. Roughly 15% of students' grammatical errors were related to article in the self-editing task as roughly 13% were article errors in the peer-feedback task before correcting errors using corpus as a DDL tool. Even though English provides three different articles to be used in English with different functions, Turkish does not include article 'the' to be utilized in sentences. Therefore, students might have difficulty in learning and using articles in their English writings.

As for the corrections of article errors, 33% and 22% of errors were corrected in the tasks utilized conventional techniques were while students corrected 23% and 42% of errors in the tasks utilized corpus as a DDL tool. Looking at the percentages, it could be reported that there was no significant difference in correcting article errors utilizing both conventional techniques and corpus as a DDL tool. This could be because Turkish has not made a distinction between nouns in terms of the functions of articles used in English and students might still have difficulty in understanding the article's function; and consequently, using appropriate articles in their English writings.

In regards to the findings, roughly 13% of students' grammatical errors were related to sentence formation in the self-editing task while roughly 16% were related to sentence formation in the peer-feedback task before correcting their errors utilizing conventional techniques. Roughly 14% of students' grammatical errors were related to sentence formation in the self-editing task as roughly 15% were sentence-formation errors in the peer-feedback task before students corrected errors using corpus as a DDL tool. First of all, the word order of the Turkish sentences can be described as Subject-Object-Verb (SOV) which means that verbs are positioned at the end of the sentences. On the other hand, words are ordered Subject-Verb-Object (SVO) in English sentences. Even though Turkish has a determined word order, it allows speakers to change the typical order in regards to some reasons. Therefore, Turkish students might have difficulty in applying patterns of English sentences and might get confused with the word order in their writings. Turkish and English also differ in regard to the structure of question sentence. Head movement of tense is required in English while a question sentence is formed with an auxiliary positioned at the end of sentences in Turkish. Hence, along with sentence patterns, students might face difficulties in forming

questions in English as a result of transferring their first language. In addition, Turkish allows speakers to drop subject from sentences while English is a non-drop language so students might tend to drop subjects in their English sentences. Hence, students might face difficulties in forming appropriate sentences in their English writings.

Looking at the findings, it could be stated that the percentages of corrections in the tasks utilizing conventional techniques were highly low. On the other hand, students corrected more than half of their errors related to sentence formation utilizing the corpus as a DDL tool. This could be because of the fact that conventional techniques like dictionaries and grammar books do not provide detail knowledge of sentence patterns. However, students can explore sentences pattern and word order of English by examining various sentences listed by corpus. By searching any unit of language, they can discover its position in sentences. In that regard, the corpus might help students correct their errors related to sentence formation.

As for the findings of the second research question in regard to vocabulary, it could be argued that students faced difficulties in selecting and using appropriate vocabulary items in their writings. This could be because of the fact that the concept of students' first language may affect their vocabulary use in the second language. In other words, students might tend to conceptualize English vocabulary through their first language and might have hardship using English vocabulary in their writings as a result of not forming a separate semantic network in the target language. Looking at the findings of the second research question in a more detailed way, students mostly made errors related to verb, word form, and nouns in the tasks assigned to them for the purpose of the study. Their percentage of errors related to adjectives, linking words, adverbs were relatively lower.

Students made many verb errors in their writings. This could be because of the fact that English verbs have various meanings shaped in accordance with the context while this situation is more limited in Turkish. Thus, students might have difficulty in deciding on the correct verb to use in their writings. Verbs also collocate with prepositions and can be referred to different meanings in accordance with the collocational prepositions in English; and consequently, phrasal verbs are formed either in an arbitrary way or in a semantic way. However, Turkish does not include a similar language unit like phrasal verbs and forms verbs in a different way. Their usages also differ in regard to their functions. Therefore, students may get confused to figure out the meanings of phrasal verbs and their usages. Regarding those possible reasons, it could be stated that students made many verb errors in their writing processes.

Looking at the corrections of students' verbs errors, it can be reported that students highly corrected their verb errors utilizing the corpus as a DDL tool while the percentage of correction is much less in the tasks utilizing conventional techniques. Conventional techniques generally provide students one-word Turkish translation and do not provide a context for students to figure out their various meanings. On the other hand, the corpus provides comprehensive data for students to examine various meanings of verbs in authentic language. Therefore, students might notice different semantic usages of verbs between Turkish and English and tend to decide on correct verbs to express their ideas in their writings. Also, examining verbs and phrasal verbs in sentences, they notice their usages, senses, and positions at sentences. Those possible arguments might be reasons for the corpus to be a more effective tool in students' writing process compared with conventional techniques.

Students also made errors related to word form. This could be due to the fact that vocabulary items are formed differently in English and Turkish. An English vocabulary may also belong to more than one-word class, unlike Turkish. Therefore, they might face difficulty in deciding on the appropriate word class of vocabulary in their writings and how to conjugate vocabulary items as verbs, nouns, adjectives, or adverbs. In addition, singularity and plurality show differences in Turkish and English. Even though all Turkish nouns have plural forms with the specific morpheme, only countable English words have plural forms with specific morphemes. Thus, students may face difficulty in conceptualizing countable nouns in target language due to the effect of their first language and might tend to use all English nouns' plural forms in their writings. Also, since English provides several morphemes to make nouns plural unlike Turkish, students might be confused about deciding on using correct morpheme when making nouns plural. In regards to those possible reasons, it could be stated that students made errors related to word form in a high percentage in their tasks.

Conventional techniques generally give a set of rules or patterns of word form and their pluralities in a deductive way without providing any context. They are also limited to provide all forms of words; instead, they show the most commonly used word forms or their plural forms. Therefore, students might tend to overgeneralize the set of rules and patterns; and consequently, might made errors in exceptional word forms and their plural forms. Also, conventional techniques do not provide a context for vocabulary even though dictionaries might inform word classes of a vocabulary. As a result, students could not figure out their semantic features only having limited data. On the other hand, the corpus provides a more

detail search for students to find word forms and their plural forms by extending search. Therefore, students may have a chance to examine all forms of words including their plural forms in a context. In addition, providing a context to students, they are able to establish semantic features with their word classes to which they belong. In those veins, it could be indicated that the corpus helps students correct their word form errors more effectively in comparison with conventional techniques.

Regarding the data for noun errors, it was observed that students had difficulty in using nouns in their writings. Again, this could be because of the differences between Turkish and English. English nouns have various meanings shaped in accordance with the context while this situation is more limited in Turkish. In this vein, students might face difficulties in finding out the correct equivalence of any English nouns to be used in their writings. Also, Turkish has such words that are difficult to find the semantic equivalence in English. It might have such nouns that reflect the culture of Turkish which do not have semantic equivalence in the target language. Thus, the percentage of noun errors are high in their writings.

Looking at the correction of their noun errors, it is observed that the percentage was highly low at the tasks utilizing conventional techniques while the findings revealed that students corrected more than half of their noun errors utilizing the target corpus tool as a DDL tool. Conventional techniques are limited to provide various meanings of English nouns since they do not provide a context for students. On the other hand, searching a noun at the corpus, students come across all meanings of it in a sentence; and consequently, they more easily decide on the correct equivalence of a noun. In addition, once a Turkish word does not have an exact equivalence in English because of cultural differences, students might find relevant or closer equivalence through examining authentic language and notice the cultural differences between those languages. In that vein, it could be reported that corpus use as a DDL tool contributes to students' writing in regards to using appropriate nouns with their correct semantic equivalences.

On the other hand, the percentage of errors related to linking words, adjectives, and adverbs were relatively lower in students' writings. This could be the reason for the similar functions of those in both languages. In both languages, adjectives modify and proceed nouns while adverbs modify and proceed verbs. Linking verbs have also similar functions in both languages; that is, they combine words, word phrases, or sentences. However, students might have difficulty in establishing semantic relations between the language of Turkish and English owing to cultural differences.

Even though students made relatively fewer errors on linking words, adjectives, and adverbs, their corrections utilizing the corpus as a DDL tool is quite more in compared with conventional techniques. Conventional techniques do not provide an appropriate context for students to notice different functions and usages of the target vocabulary items. On the other hand, providing authentic context, the corpus gives students a chance to examine the target vocabulary and notice their semantic and functional features. In this vein, it could be indicated that the corrections of linking words, adjectives, and adverbs errors were quite high in the tasks benefitting from corpus as a DDL tool.

As for the thematic category of mechanics, the findings of the second research question regarding the contribution of the corpus use in students' writings reported that the mechanic errors of students were few in both the tasks utilizing conventional techniques and the tasks utilizing the corpus as a DDL tool. Looking at the corrections of mechanic errors, the percentages at the tasks utilizing corpus as a DDL tool were a little bit higher than the tasks utilizing conventional techniques. The slight difference between the conventional techniques and corpus could be due to the fact that analyzing the sentences provided by corpus, students might be aware of the functions of some punctuation marks which they had not known beforehand. Still, it could be argued that both conventional techniques and corpus as a DDL tool are not enough effective techniques to correct mechanic errors.

Third Research Question

The third research question addressed the opinions of Turkish EFL students about corpus use as a DDL tool. To explore their opinions, a written opinion survey including seven open-ended questions was developed. The questions were consulted to three experts who have already lectured the course 'Advance Reading and Writing II' and have already had the knowledge of DDL and the function of corpus in that context. After the experts' approvals, the written opinion survey took its final shape.

The questions addressed participants' opinions about corpus use as a DDL tool. In that regard, the first research question explored sources from which students benefitted in their writing processes before introduced the COCA tool. Two of the questions aimed at figuring out how students benefitted from the target corpus tool in their writing process and explore the contribution of the target corpus tool to their writing processes. The survey also aimed

at finding out what kinds of errors they corrected utilizing the target corpus tool in self-editing and peer- feedback tasks. In addition, it was sought to determine whether participants found corpus as a DDL tool effective and useful and whether they were willing to consult it in their following writings.

In analyzing the data obtained from the written opinion survey, the content analysis method was utilized. In this vein, answers of each question were examined in detail and categorizations were made in the lights of the answers. Table 7 presents the findings of the written opinion survey.

Findings of the third research question

The categorization of students' opinions was presented in the following:

Table 7

Turkish EFL learners' opinions about using corpus as a DDL tool

Category	Thematic Category	*F*	Sample Key Terms
Sources from which students benefitted before introduced COCA as a DDL tool	Dictionaries/online dictionaries	49	Tureng, Oxford, Cambridge, Colins, English-Turkish dictionaries
	Internet	36	Grammarly.com Google translate
	Books	28	Grammar books ELS
	Their existing knowledge	19	Myself
Kinds of errors students corrected through COCA as a DDL tool	Vocabulary	41	Meaning of vocabulary Vocabulary usage Word form Academic vocabulary Synonyms
	Grammar	36	Grammar rules Grammar structures
The effectiveness of COCA as a DDL tool	Effective and useful	56	Provide various sample sentences Improve writing skills Easy and comprehensible
	Ineffective	5	Hard to use Complicated Time-consuming
The contribution of COCA as a DDL tool to their writing process	Assessing and improving their writing performance	52	Find and see my mistakes Correcting errors
	Introducing academic language	6	Academic vocabulary Academic discourse
	Making the writing process easier	3	Make easier to find and correct mistakes Giving more accurate feedbacks
	Exposing to authentic language	2	Sentences from native speakers
	Gaining a new perspective to the writing process	1	
Willingness to utilize COCA as a DDL tool in their following writings	Willing to use corpus	56	Effective and useful Provides academic language An easy tool Advising their peers
	Unwilling to use corpus	5	Complicated Time-consuming

Table 7 represents the opinions of Turkish EFL students about corpus use as a DDL tool and addressed various aspects to figure out their opinions. It aimed at exploring possible sources from which students had benefitted in their writing processes before they introduced corpus as a DDL tool, students views on the effectiveness and contribution of corpus as a DDL tool in their writing processes, and their willingness to utilize corpus as a DDL tool in their following writings.

Regarding Table 7, most of the students generally utilized dictionaries/online dictionaries like Tureng, Oxford dictionaries, Cambridge dictionaries, and English-Turkish dictionaries to correct their own errors and peers' errors. Also, they generally benefitted some Internet sites like Google translate and Grammarly, and grammar books in their self-editing and peer-feedback tasks before they were introduced the corpus as a DDL tool. In addition, few

students stated that they did not utilize any sources to correct errors and they just utilized their own knowledge to revise writings. In this vein, it can be indicated that students consulted various dictionaries/online dictionaries and Internet sites to correct their vocabulary and spelling errors while they benefitted from grammar books and Internet sites to correct their grammar and mechanic mistakes in their self-editing and peer-feedback tasks before introduced to corpus.

Table 7 also presents what kinds of errors students corrected utilizing the corpus as a DDL tool. Students stated that they mostly consulted the target corpus tool in order to correct their vocabulary and grammar mistakes. Students generally consulted the target corpus tool with the aim of exploring the meaning of unknown words, figuring out vocabulary items' appropriate usage and word forms, exploring academic discourse to write an appropriate essay, and searching synonyms of the vocabulary in order to avoid from falling into repetition in their essays. They also utilized the target corpus tool to explore grammar rules and various grammar structures, and their correct usages in sentences in self-editing and peer-feedback tasks.

Table 7 shows students' views on the effectiveness of corpus as a DDL tool in their writing processes, as well. Almost all students found corpus as an effective and useful tool to use in their writing processes while only a few states they were ineffective. Students generally indicated that the corpus helped students improve their writing skills by providing comprehensive data by listing sample sentences to students as well as indicating that the target tool was easy to search and find the necessary data. For those reasons, most of the students found corpus as an effective tool in their writing processes. On the other hand, a few students found corpus tools a complicated and time-consuming tool as well as they reported that they had trouble in searching data at the target corpus tool.

Depending on Table 7, it can be stated that students thought corpus as a DDL tool contributed to their writing performances in various aspects. Most of the students reported that consulting corpus made them aware of their current writing performances and improve their writing performances. They also stated that corpus use introduced the authentic and academic language, made their writing processes easier and gained them a new perspective to writing processes. Some of the participants reported the contribution of corpus use in their writing process in the followings:

"Consulting COCA is an effective way to learn. It is just like a ladder. Thanks to this ladder, we climb a Success Mountain".

Student 14

"COCA provides sentences of native speakers of English and all words I wanted to find. It has everything".

Student 54

"It gave a new perspective to understand vocabulary in context".

Student 23

"It contributed to correct my mistakes because I could not find any mistake when I checked my writings. It helped me see my mistakes more clearly".

Student 47

"It helped us to see our mistakes and now, day by day we can improve ourselves".

Student 36

In addition, Table 7 represents the willingness of students to utilize the target corpus tool as a DDL tool in their following students. Almost all students reported that they were willing to utilize it since they found corpus as an easy, effective, and useful tool to consult their errors, and thought it provided academic language. On the other hand, a few were unwilling to continue to use it since they found it as a complicated and time-consuming tool.

Discussion of the third research question

Regarding the findings of the written opinion survey, it could be stated that students generally had positive opinions towards corpus use as a DDL tool in their writing processes. Most of the students found corpus as an effective and useful tool in correcting their errors. That could be due to the fact that the corpus provides a much larger language sample and contextualized, meaningful language in real usages. Considering the sources from which they had benefited in correcting errors, students needed to consult different sources for correcting grammar, vocabulary, and mechanics errors. In that regard, dictionaries and online dictionaries can only provide a limited vocabulary knowledge to students. Some inform only meanings of unknown vocabulary while some only provide unknown vocabulary in sentences. However, they provide limited number of sample sentences and students are restricted to infer the meaning and usage of unknown words form sentences. Students also needed to consult another kind of source to correct their grammar mistakes. Regarding the students' answers, those sources were grammar books or some Internet sites.

However, those kinds of sources generally give the rules and a few examples to students.

On the other hand, the target corpus tool provides comprehensive samples to students by listing so many sentences in correcting vocabulary, grammar, and mechanics errors. As for vocabulary knowledge, students could look up the most common words used in the target language with their frequencies, collocation of the words, expressions in the target language, and meaning of words and word usage. Students could also easily correct their grammar errors by searching grammar structures at the corpus. Students also exposed to authentic and contextualized language by inferring syntactic and semantic patterns of vocabulary, and grammar rules. Thus, they corrected their errors depending on more reliable and meaningful data. In addition, students could search vocabulary in accordance with different genres and registers as well as different discourses like academic discourse and they had a chance to figure out appropriate usage of searched vocabulary. Regarding those reasons, students might report that the corpus as a DDL tool was an effective and useful tool in correcting errors.

In addition, the findings of the written opinion survey indicated that the corpus as a DDL tool had a contribution to students writing processes. Students reported that corpus consultation helped them become aware of their deficiencies at writing. This could be because the corpus provided them contextualized and meaningful language. Since students were not native speakers of English, their foreign language usage could be problematic, and they did not have enough knowledge of English and its academic discourse. However, corpus gave them a chance to examine language and to explore appropriate usages of language patterns in an authentic context. Exposing the authentic and contextualized context, students might become aware of their deficiencies at writing tasks.

Students also stated that using corpus as a DDL tool made their writing processes easier. This could be owing to the fact that corpus provided them comprehensible data in an electronic environment. In that regard, students could easily search anything with a single-clicking and in a very short time, and the results of their search were shown on screen. Therefore, it could be time-saving in a search. In addition, students could find comprehensible data about language; that is, the corpus provided syntactic and semantic patterns of vocabulary items and grammar to students; and therefore, students did not need to consult various sources in their writings. Students might think that corpus made their writing processes easier probably because of being electronic and providing comprehensible data to students.

In addition, students indicated that the corpus enabled them to improve their writing performances. This could be due to the fact that it provided comprehensive, reliable and authentic language in correcting their errors. When students examined authentic and contextualized language, they compare their writings and the authentic language, and therefore, they became aware of their deficiencies and errors in the language. In that regard, the corpus provided them reliable and comprehensible data to correct their errors more effectively. It also provided a chance to analyze authentic language and making inferences; therefore, it encouraged students to make independent and autonomous investigations on the target language. In the light of the independent and autonomous investigations, students analyzed their own writings and corrected their mistakes. For those reasons, students might improve their writing performances utilizing the corpus as a DDL tool.

Conclusion

This chapter presented the findings of research questions with their discussions. In that regard, it tried to seek the answers whether corpus use as a DDL tool made any difference in students' writing performances and tried to make an interpretation of the effect of corpus use as a DDL tool on students' writing performances. The chapter also tried to find out in what ways corpus made contributions to students' written products with their possible reasons. Finally, the chapter tried to reveal Turkish EFL students' opinions about corpus use in their writing processes.

CHAPTER V

CONCLUSIONS AND IMPLICATIONS

Introduction

This study explored the effectiveness of corpus use as a DDL tool on Turkish EFL students' writing performances and the contribution of corpus use on their writing processes. The study also investigated Turkish EFL students' views on corpus use as a DDL tool. In order to determine the effect of corpus use as a DDL tool, the data were gathered from students' final drafts students had edited through utilizing conventional techniques and corpus were scored and the scores of self-editing and peer- feedback tasks were compared separately. To explore how corpora contribute to students' writing process, each of the students' final drafts was examined in regard to what kind of errors students corrected utilizing the target corpus tool. As for the opinions of Turkish EFL students, the data obtained from the written opinion survey was analyzed.

In this chapter, the findings will be discussed in the light of previous studies conducted to examine corpus use as a DDL tool in writing classes. This chapter also presents pedagogical implications and suggestions for further studies.

Results

Initially, the findings of the current study regarding the effect of corpus use as a DDL tool on Turkish EFL students' writing performances will be presented and discussed with reference to the literature. Secondly, how corpus use as a DDL tool contributes to students' writing processes will be presented and discussed with reference to the literature. Lastly, the opinions of Turkish EFL students about corpus use as a DDL tool will be presented and discussed with reference to literature.

Effects of Corpus Use as a DDL Tool on Turkish EFL Students' Writing Performances

The quantitative data were obtained from students' final drafts which students had produced at given tasks. Students were administered two self-editing and two peer-feedback tasks. In the first self-editing and peer-feedback tasks, students were asked to edit respectively their own writings and their peers' writings utilizing conventional techniques. After students' editing, final drafts of students produced utilizing conventional techniques at self-editing and peer-feedback tasks were scored through a holistic rubric. Then, students took a two-week treatment on how to utilize one of the corpus tools (COCA) when editing their writings. After the treatment, students were assigned other self-editing and peer-feedback tasks. In those tasks, they were asked to edit respectively their own and their peers' writings utilizing the corpus as a DDL tool. Then, the final drafts of students produced utilizing the corpus as a DDL tool at self-editing and peer-feedback tasks were scored through a holistic rubric.

Once students completed their all tasks given for the purpose of the study, students' final drafts edited utilizing conventional techniques in self-editing task were compared with students' final drafts edited utilizing corpus as a DDL tool in the peer-feedback task. Similarly, students' final drafts edited by their peers utilizing conventional techniques were compared with students' final drafts edited by their peers utilizing the corpus as a DDL tool. To compare students' scores, Wilcoxon signed-rank test from non-parametric tests was utilized.

The findings regarding the total scores of students revealed that corpus use as a DDL tool improved students' writing performances in self-editing tasks. When students' scores were analyzed in regards to the traits, it was observed that corpus use made a significant difference on the traits of organization, content, language use, vocabulary, and mechanics. When it comes to the findings regarding the total scores of students in peer-feedback tasks, it was explored that corpus use as a DDL tool improved students' writing performances. However, the detailed analysis of peer-feedback tasks showed that corpus use had a positive effect on the two traits: language use and vocabulary. Thus, it can be claimed that corpus use can affect students' writing performances in producing more qualified writings.

In the study, it was hypothesized that corpus use as a DDL tool made a significant difference on the total scores of students and on the traits of language use and vocabulary in self-editing and peer correction tasks while corpus use as a DDL tool did not make any difference on the traits of organization, content, and mechanics. The findings regarding peer-feedback tasks

confirmed all hypotheses claimed this study. On the other hand, the findings regarding self-editing tasks confirmed the hypotheses which claim that corpus use had a significant effect on students total scores as well as on the traits of language use and vocabulary even though it rejected the hypothesis which claim that corpus use as a DDL tool did not make any difference on students writing performances in regards to the traits of organization, content, and mechanics.

The findings of the current study confirm the findings of previous studies which were conducted within the context of the effect of corpus use as a DDL tool on students' writing performances (Feng, 2014; Kennedy & Miceli, 2010; Luo, 2015, 2016; Luo and Liao, 2015; Yoon, 2008). Those studies tried to reveal the effectiveness of corpus use as a DDL tool on students' overall writing performances. Luo (2016) had an attempt to investigate the effectiveness of corpus consultation on students' overall writing performances. Chinese EFL learners participated in the study. They received corpus training for the purpose of the study and asked to revise their writings utilizing one of the corpus tools. The findings of this research showed that students wrote more accurately and fluently when consulting corpus. The findings are consistent with the current study which revealed that corpus use as a DDL tool in error correction made a significant difference in students' overall writing performances.

This study also supports evidence from the study of Feng (2014) who studied the effects of corpus use as a reference tool on error correction on their writing processes and overall writing performances. In line with this purpose, three graduate ESL students were asked to write three essays. Essay 1 showed students writing performances. Students revised their first writings consulting corpus concordancing (Essay 2) and students wrote their final essay utilizing corpus as a reference tool (Essay 3). Then, three written assignments were analyzed to determine the effect of corpus consultation on students writing performances and error correction processes. The findings revealed that students generally corrected their vocabulary errors in regard to choosing the most appropriate word on the error correction process. It was also found out that students' overall performances on the writings which were produced utilizing corpus were slightly better than their first writings which showed students' original writing performances. These results are in agreement with the current study which revealed that corpus use as a DDL tool in the writing process had a positive effect on students' overall writing performances and their vocabulary use in their writings.

The current study had similar findings were those of Kennedy and Miceli (2010), and Luo

and Liao (2015) who investigated the effect of corpus use in writings. Kennedy and Miceli (2010) focused on accuracy through solving students' grammatical problems. Investigating corpus as a reference-resource consultation in students' writings in order to achieve accuracy of grammatical structures, they studied with three intermediate-level students who received corpus training for a semester. Students were encouraged to be imaginative in their writings and focus on solving their grammatical problems utilizing the corpus as a reference tool. The results of the study indicated that the consulting corpus was an effective way to solve students' grammatical problems and improve their writings. Similarly, Luo and Liao (2015) studied the effect of corpus use in writing processes. 30 undergraduate students participated in the study. For the purpose of the study, the control group was asked to correct their lexico-grammatical errors utilizing online dictionaries while the experiment group worked on their lexico-grammatical errors utilizing corpus as a reference tool in revising their writings. The findings showed that corpus use as a reference tool encouraged students to make more accurate corrections and to make fewer errors in comparison with online dictionaries. These results corroborate the findings of a great deal of the current study in regard to improving students' use of grammar structures in their writings. In that regard, the current study revealed that students made progress on using appropriate grammar structures utilizing the corpus as a DDL tool.

On the other hand, the findings of current study are contrary to the studies of Luo (2015) and Yoon (2008). Studying corpus use as a DDL tool in prewriting stage, Luo (2015) aimed to figure out the effect of corpus use as a DDL tool on improving the content by generating ideas and expressions. Participants were asked to examine paper-based DDL materials and then, revise their previous writings by using corpus. The findings indicated that even though students were encouraged to generate ideas and expressions utilizing corpus as a reference tool in comparison with traditional methods, corpus consultation did not make an obvious effect on correcting errors compared with online dictionaries. However, the current study revealed that corpus use did not make a significant difference in improving the content of students' writings while it had a positive effect on correcting students' grammar and vocabulary errors. Similarly, aiming at improving students' writing competence through corpus use as a DDL tool, Yoon (2008) studied with six L2 writers. In line with the purpose of the study, participants were asked to integrate corpus use into their writing processes with an attempt to solve their writing problems. The findings revealed that students effectively used corpus as a DDL tool in improving the content of their writings and their acculturation

knowledge. However, the findings also revealed that students still faced difficulty in using appropriate language features in their writings.

Contribution of Corpus Use as a DDL Tool on Turkish EFL Students' Writing Performances

The qualitative data were obtained from students' writing with the aim of determining the contribution of corpus use as a DDL tool in their writing processes. For the purpose of the study, students were assigned four writing tasks. The first writing task required students to correct their own writings using conventional techniques. In the second writing task, students corrected their peers' errors using conventional techniques. On the other hand, the third writing task asked students to correct their errors utilizing one of the corpus tools as a DD tool while the four writing tasks required them to correct their peers' errors utilizing the corpus as a DDL tool.

In this vein, the content analysis method was utilized for the purpose of the study. In analyzing their writings, students' errors were analyzed for each writing. It was taken attention to the kinds of errors students made for each writing. Once students' errors were determined, it was looked at what kinds of errors students corrected utilizing conventional techniques in self-editing and peer-feedback tasks. It was also determined what kinds of errors students corrected utilizing corpus as a DDL tool in self-editing and peer-feedback tasks. Then, errors were categorized in regards to their similarities and frequencies of corrections, false repairs, and no-corrections were reported in tables for each writing task.

The findings regarding the contribution of corpus use as a DDL tool indicate that corrections utilizing conventional techniques in self-editing and peer- feedback tasks were highly few. In the self-editing tasks, making a comparison among thematic categories, the percentages of corrections using conventional techniques from the highest to lowest is respectively grammatical errors, mechanic errors, organizational errors, and vocabulary errors. Similarly, students made little corrections using conventional techniques in the peer-feedback task. Looking at the correction in regards to categories, it was observed that students respectively corrected their organizational errors, grammar errors, mechanic errors, and vocabulary errors in the peer-feedback task. Therefore, it could be indicated that even though the corrections in all categories were still highly low using conventional techniques in self-editing and peer-feedback tasks, students mostly faced problems in correcting their vocabulary errors utilizing conventional techniques.

Looking at the error corrections in a more detailed way, it was revealed that students mostly had difficulty in correcting their preposition, tense, agreement, article, and sentence formation errors using conventional techniques in the category of grammar even though they had generally trouble in using those grammar structures in self-editing and peer-feedback tasks. As for the category of vocabulary, students mostly faced difficulty in correcting their verb errors, and then respectively noun, linking words, adverb, and adjective errors utilizing conventional techniques in the self-editing and peer-feedback tasks. In addition, it was revealed that students mostly had difficulty in correcting their spelling errors utilizing conventional techniques.

On the other hand, the findings indicated that students corrected approximately half of their errors utilizing the corpus as a DDL tool in self-editing and peer-feedback tasks. Analyzing error correction of students, percentages from the highest to the lowest are respectively vocabulary, grammar, mechanics, and organization errors. Based on the findings, it can be stated that students generally utilized corpus as a DDL tool in correcting their vocabulary and grammar errors in both self-editing and peer-feedback tasks.

In order to determine the contribution of corpus use as a DDL tool in the writing process in more detailed, error corrections were analyzed in each categorization. The findings stated that students generally corrected their agreement, preposition, sentence formation, and tense errors utilizing the corpus as a DDL tool in self-editing and peer-feedback tasks. As for the category of vocabulary, it was revealed that the percentage of error corrections was quite high in all thematic categories (verb, word form, noun, linking words, adverb, and adjective)

In comparison with conventional techniques, it could be indicated that corpus use as a DDL tool mostly contributed to students' vocabulary and grammar errors. However, when looked at the increase in the percentages of error corrections, it was stated that students mostly utilized corpus as a DDL tool in correcting their vocabulary errors. Also, when compared the students' error correction in regards to the category of vocabulary utilizing conventional techniques with corpus use as a DDL tool, it was observed that students mostly utilized corpus as a DDL tool in correcting their verb errors. Still, in compared with error corrections utilizing conventional techniques, corpus use as a DDL tool had a contribution of all types of vocabulary errors considering the fact correction rate utilizing corpus as a DDL tool in all types of vocabulary errors showed increase. As for the category of grammar, corpus use as a DDL tool had mostly contribution to correcting their preposition, tense, agreement, and sentence formation errors. However, students still faced problems in correcting their article

errors utilizing the corpus as a DDL tool in their writing processes.

The findings of current study confirm the findings of previous studies which were conducted with the aim of determining how corpus use as a DDL tool contributed to students' writing processes (Alshaar & AbuSeileek, 2013; Boulton, 2009; Chambers & O'Sullivan, 2004; Cotos, 2014; Cowan, Choo, & Lee, 2014; Lu, Hung & Lu, 2016; O'Sullivan & Chambers, 2006; Yeh, Liou &Li, 2007). In that regard, Chambers and O'Sullivan (2004) and O'Sullivan and Chambers (2006) conducted a detailed investigation of corpus use as a DDL tool in error correction. Training how to utilize corpus in correcting their errors, eight postgraduate students were asked to write short texts for the purpose of the study. After analyzing students' writings, it was revealed that students mostly utilized corpus as a DDL tool in correcting their grammatical errors (agreement, prepositions, verb forms/mood, negation, and syntax). The findings of the study confirm the findings of the current study in regard to the contribution of corpus use as a DDL tool in correcting grammatical errors. Both studies revealed that students generally utilized corpus to correct their preposition errors, the errors related to sentence formation, and verb errors. However, the findings of the current study indicated that corpus use as a DDL tool had a contribution in correcting agreement errors slightly more than using conventional techniques.

Similarly, Alshaar and AbuSeileek (2013) examined the effect of concordancers on EFL students' writing performances. For the purpose of the study, 48 MA students were trained on how to consult corpus as a DDL tool and they were asked to correct their errors utilizing one of the corpus tools as a DDL tool. Then, students' errors were analyzed. The findings of the study indicated that students mostly corrected their grammatical and vocabulary errors utilizing the corpus as a DDL tool. This study confirms the findings of the current study in regard to the contribution of corpus use as a DDL tool in error correction. The current study also revealed that students mostly utilized the corpus as a DDL tool when correcting their vocabulary and grammar errors. However, the study of Alshaar and AbuSeileek (2013) found out that students also corrected their spelling errors utilizing the corpus as a DDL tool. On the other hand, the findings of the current study indicate that corpus use as a DDL tool in correcting spelling errors did not make much difference in comparison with conventional techniques. Lu, Hung and Lu (2016) also studied corpus as a DDL tool in process writing. For the purpose of the study, they prepared a corpus training program for learners. After corpus training, students were asked to edit their writings utilizing the corpus. The findings revealed that corpus provided help students improve their language usages and correct their

lexical and noun errors. The findings of the study are in agreement with the current study's findings which showed corpus helped them improve students' overall writing performances as well as correct their noun errors.

Boulton (2009) investigated a relatively more specific effect of corpus use on students' writings. He aimed at figuring out the effectiveness of data-driven data in learning linking adverbials in compared with traditional methods with the aim of improving students' writings. In that regard, students worked on short context and concordancers derived from corpus to study linking adverbials. The findings of the study indicated that data-driven data as a reference tool helped students improve their uses of linking adverbials in their writings. Similarly, studying the effect of corpus-driven data on the adverbial clauses and their general language use in writings, Cotos (2014) encouraged students to work on DDL activities and asked students to write their final drafts utilizing corpus-driven data. The writings were analyzed in regard to their use of adverbial clauses and general language use. The findings stated that students exposed to corpus-driven data made significant progress in regards to their general writing performances and the use of adverbial clauses.

Even though those studies differ with the current study regarding the fact that current study asked students to utilize corpus as a DDL tool in correcting their errors without specified any kinds of errors, the findings of Boulton's (2009) and Cotos (2014) studies confirm the findings of the current study at some aspects. The findings of the current study revealed that students properly corrected their linking adverbials and clause errors through studying and analyzing concordance lines. In other words, working on concordancers helped students learn their appropriate semantic and syntactic patterns in the current study. Therefore, both previous studies and the current study confirm that corpus use as a DDL tool provides students an effective reference tool in improving their uses of the structures of linking adverbials in their writings. In addition, the study of Cotos' (2014) confirms the findings of current study in regard to the contribution of corpus use as a DDL tool in improving students' general language use in their writings.

On the other hand, Cowan, Choo, and Lee (2014) studied the effects of corpus consultation on students' grammatical errors. In their studies, students were encouraged to work on concordance lines with the aim of increasing students' awareness of four errors: articles, passives, quantifiers, and demonstrative determiners. Students were asked to find and correct the mistakes through consulting corpus. The findings indicated that corpus use as a DDL tool encouraged students to raise awareness of their grammatical errors, especially for their

articles, passives, quantifiers, and demonstrative determiners. Even though both studies confirm that students could effectively correct their grammatical errors utilizing corpus as a DDL tool, the findings of the study conducted by Cowan, Choo, and Lee (2014) differs with the findings of current study in regard to correcting errors of articles, passives, quantifiers, and demonstrative determiners utilizing corpus. The findings of the current study indicated that corpus use could not make much difference in correcting students those four errors in their writings in comparison with conventional techniques. However, this could be because students did not ask to focus on any specific item while getting trained on corpus consultation. On the other hand, students focused on those four grammar elements when working on concordance lines and consulting corpus in the study of Cowan, Choo, and Lee (2014).

Another recent example that examined corpus use as a DDL tool in the writing process was that of the study of Crosthwaite (2017). He investigated the contribution of Data-Driven learning in students' error correction. In this vein, students received training on how to use corpus as a reference tool in correcting errors. Students were asked to write on a given topic, and then correct their errors consulting corpus. Students' writings were analyzed in regard to what kinds of errors students corrected utilizing corpus as a DDL tool. The findings indicated that students mostly utilized the corpus in correcting their word choice and word form errors. The findings of this study confirm the findings of the current study in regard to the contribution of corpus use as a DDL tool in correcting vocabulary errors. The current study also revealed that students mostly consulted corpus to select appropriate words and word forms in their writings considering the increase in the percentages of error correction in regards to all types of vocabulary and word form in the tasks in which students utilized corpus as a DDL tool.

Investigating the contribution of corpus use as a DDL tool in a more specific area, Yeh, Liou and Li (2007) aimed at utilizing one of the corpus tools as a DDL tool in increasing students' use of adjectives. For this purpose, they asked students to work on concordance lines derived from the bilingual corpus with the aim of examining synonym adjectives. Then, students were assigned a writing task. After analyzing students' writings in regards to adjectives, the findings indicated that students used more specific adjectives in their writings. Even though this study differs with the current study in regards to the type of corpus utilized for the purpose of the study, the findings of the current study in which students were taught to search synonyms of words at COCA also revealed the progress at students' use of adjectives in their

writings. Analyzing students' adjective errors, it was taken attention to determine whether students used specific and appropriate adjectives in regards to their semantic equivalences in the current study and the findings revealed that students made error correction more frequently in regards to adjective use utilizing corpus as a DDL tool. In that vein, it could be indicated that both studies confirm that corpus use as a DDL tool contributed students to use more specific adjectives in their writings.

Turkish EFL Learners' Opinions about Corpus Use as a DDL Tool

The qualitative data were obtained from the written opinion survey developed with the aim of exploring the opinions of Turkish EFL learners about corpus use as a DDL tool. Once students were completed their four writing tasks, the written opinion survey was distributed to students. The written opinion survey included seven open-ended questions. The open-ended questions sought to explore the sources students had benefitted from in self-editing and peer- feedback tasks before utilizing the corpus as a DDL tool in their writing processes. It was also aimed to reveal how students benefitted from corpus as a DDL tool in their writing processes and giving feedback to their peers, and what kind of errors students corrected utilizing the corpus as a DDL tool. In addition, students' opinions about whether corpus use as a DDL tool was effective and useful in improving their writing performances, and their opinions about the contribution of corpus use as a DDL tool to their writing processes were attempted to be explored in the written opinion survey. Finally, students were asked whether they were willing to use corpus as a DDL tool in their further writings.

Students were asked to answer the questions anonymously to ensure that answers were given sincerely. Once data was collected from the written opinion survey, the content analysis method was utilized to conduct analysis. Students' all answers were examined, and categorization was made taking reference to similar attributes in answers. In light of the analysis of the written opinion survey, five categories were formed: sources from which students benefitted before introduced a corpus tool as a DDL tool, kinds of errors students corrected through corpus use as a DDL tool, effectiveness of corpus use as a DDL tool, contribution of corpus as a DDL tool to their writing process, willingness to utilize corpus as a DDL tool in their following writings.

The findings indicated that students had mostly utilized dictionaries or online dictionaries like Tureng, Oxford, Cambridge, Colins etc. when correcting their errors in self-editing and peer-feedback tasks before they were introduced corpus tools. Students also corrected their

errors utilizing some internet sites and books before they were introduced to one of the corpus tools in their writing processes. Looking at the findings, it can be indicated that students searched their errors at some grammar books like ELS, and such Internet sites as Google Translation.com and Grammarly.com. In addition, some students reported that they had not utilized any sources and they had just utilized their existing knowledge when correcting their errors.

The findings also explored that students utilized corpus as a DDL tool in mostly correcting their vocabulary errors in their writing processes. They reported that they generally used the target corpus tool to figure out the meaning of vocabulary, find out their usages, explore word forms, and search academic words and synonyms of words. As for their grammar errors, students mostly utilized corpus to find out grammar structures and infer grammar rules from the concordance lines.

The findings regarding students' opinions about the effectiveness of corpus use as a DDL tool revealed that most of the students found corpus as an effective and useful tool in their writing processes. They thought that the target corpus tool was an easy and comprehensible tool and provided various samples to examine and analyze the authentic language. Students also reported that the corpus was an effective and useful reference tool to improve their writing skills. On the other hand, a few students found the corpus as an ineffective tool since they thought that corpus was a complicated and time-consuming tool. They also indicated that they faced difficulties in using corpus in their writings.

The findings regarding the opinions of students about the contribution of corpus to their writing processes explored that students utilized corpus to assess and improve their writing performance. Students also reported that the corpus introduced academic language to them and made them their writing processes much easier. In addition, it was indicated that students were exposed to authentic language through corpus use and corpus use gave them a new perspective to their writing processes.

The findings regarding students' willingness to utilize corpus in their following writings revealed that the majority of students were willing to utilize corpus in their further writing processes since they thought that corpus introduced academic language to them and it was an easy tool to use. Some students also reported that they were going to advise corpus use to their peers. On the other hand, a few students stated their unwillingness to corpus use in their following writing processes since they thought that the corpus was a complicated and time-consuming tool.

The findings of the current study confirm the findings of previous studies which were conducted with the aim of exploring students' opinions about the corpus use as a DDL tool in writing process (Aşık, Vural & Akpınar, 2016; Luo, 2016; Luo & Liao, 2015; Quinn, 2015). In this vein, Luo (2016) had also an attempt to explore Chinese EFL students' attitudes towards corpus use except investigating the effectiveness of corpus use as a reference tool on students' overall writing performances within the context of DDL. Students received corpus training to figure out how to utilize corpus as a DDL tool in their writing processes. After the treatment, a survey was conducted to explore students' attitudes towards corpus use as a DDL tool. The findings indicated that students generally showed positive attitudes towards corpus use as a DDL tool. However, they reported that they had still experienced some difficulties in using corpus in their writing processes. The findings of the study confirm the findings of the current study. The current study revealed that most Turkish EFL students found corpus as an effective and useful tool, and they were willing to utilize corpus in their following writing processes. Turkish EFL students reported that the corpus helped learners to improve their writing performances and made their writing processes easier. On the other hand, some students stated that they had still faced difficulties in using corpus tool.

Similarly, in addition to studying the effectiveness of corpus use in the writing process, Luo and Liao (2015) also revealed the attitudes of undergraduate students towards corpus use in their studies. 30 undergraduate students received corpus training to correct their errors. After the experiment was conducted for the purpose of the study, a questionnaire was implemented to explore the attitudes of students towards corpus use as a DDL tool. The findings revealed that students developed positive attitudes towards corpus use as a reference tool in the context of DDL. The findings of the studies of Luo (2016) and Luo & Liao (2015) broadly support the work of current study regarding the fact Turkish EFL students received corpus training for two weeks to figure out how to utilize corpus in correcting their errors and after all, in their writing processes. The current study explored that Turkish EFL students reported that corpus use as a DDL tool was an effective and useful way to improve their writings.

In addition, Quinn (2015) aimed at exploring students opinions about corpus use utilized in their writing processes. For this purpose, 58 undergraduate students received corpus training, they were presented how they could integrate corpus into their writing processes, how they could utilize corpus as a reference tool in correcting their errors. The findings revealed that the corpus as a reference tool was a positive experience for most of the participants. The

findings of the study are in line with that of the current study. The current study revealed that Turkish EFL students reported that corpus helped them improve their writing performances and reported their positive opinions about corpus use as a DDL tool.

As for the Turkish context, Aşık, Vural, and Akpınar (2016) explored Turkish EFL students' attitudes and beliefs towards DDL instruction. Students introduced COCA as a corpus tool with the aim of exposing students to DDL. Once target corpus tool was introduced, ten-hour DDL training were given to students for the purpose of the study. In that training, students were asked to search the lexical items that they needed or wanted. After the trainings, a questionnaire was implemented and a focus group interview was conducted to explore students' attitudes and beliefs towards corpus use within the context of DDL. The results showed that students developed positive attitudes towards corpus use as a DDL tool in regards to lexical awareness. However, it was reported that some students had difficulties in understanding the meanings of the searched words. Few students also stated that corpus use as a DDL tool was time-consuming. The findings of study also accord with the current study which revealed that most students thought that corpus use as a DDL tool was effective and useful, and contributed to improving writings in regards to grammar and vocabulary uses. On the other hand, the current study also explored that a few students shared that they faced difficulties in searching at COCA and thought corpus use within the context of DDL could be time-consuming.

Pedagogical Implications

The findings of the current study revealed the potential effectiveness of corpus use as a Data-Driven Learning tool on Turkish EFL learners' writing processes. In regards to integrating corpus use as a DDL tool in the writing process, several pedagogical implications for error correction, and English grammar and vocabulary teaching might be discussed.

First of all, the current study provided evidence that consulting corpus as a DDL tool could be effective and useful for students to improve their writing performances. In this vein, the study provided evidence that students could effectively use the corpus tool as a DDL tool in improving their English language use. Thus, it can be indicated that the current study provided evidence that integrating corpus use as a DDL tool in students' writing processes are a more effective and useful reference tool for advanced learners of English in improving students' writing performances in comparison with conventional techniques such as dictionaries, online dictionaries, grammar book, etc.

Secondly, the current study provided evidence that students mostly made use of corpus as a DDL tool in correcting their vocabulary and grammar errors. In that regard, the current study provided evidence that integrating corpus to students' writing processes contributed to improve their understanding of English grammar and vocabulary. Therefore, the findings of the current study suggest that corpus use as a DDL tool is an effective way to encourage students to improve their understanding of the English language, especially for English grammar and vocabulary and an effective reference tool for error correction.

Current data also highlight the importance of corpus use in language teaching, as well. The current study provided evidence that examining concordance line, students could improve their abilities to extract grammar rules from concordance lines, to infer semantic and syntactic knowledge of language items. In that regard, it could be suggested that language teachers can make use of corpus tools when teaching grammar and vocabulary by developing corpus-based instructions and DDL activities. Benefiting from concordance lines, teachers can present semantic and syntactic features of target language items or any grammar rules with the aim of asking learners to derive the semantic and syntactic features of target vocabulary items or target grammar rules. In addition, teachers can also develop their own DDL activities to make use of in their language lessons with the aim of practicing the language. In that way, in line with inductive learning, students have a chance to expose authentic language; and after all, learning English vocabulary and grammar can be more meaningful.

Furthermore, the results of this research support the idea that integrating the corpus as a DDL tool in students' writing processes is an effective and useful way to raise students' language awareness. Therefore, material developers can be suggested to utilize corpus data to present authentic and meaningful input to language learners.

Suggestions for Further Research

Based on the findings of the present study, several important areas can be highlighted for further research in regards to corpus use as a Data-Driven Learning tool in the writing process. First of all, a replication of the study can be conducted to confirm the findings with more participants with different backgrounds and more time.

Secondly, the study was limited to including only an experimental group. It can be necessary to conduct a DDL research with a control and experimental group in order to eliminate the

learning effect. Further researches can examine the effect of corpus use as a DDL tool with a control and an experiment group so that they can compare students' performance with and without corpus use as a DDL tool and eliminate learning effect.

Thirdly, further work needs to be carried out in other skills (i.e., speaking) except writing in order to determine the effect of corpus use as a DDL tool on improving language teaching/learning regarding the fact that corpus provides authentic language and meaningful input to students and DDL provides a meaningful and inductive learning environment.

The study like most previous studies has been carried out in a university setting. Further studies may also focus on high school or middle school education in EFL settings in order to find out the effect of corpus use as a DDL tool in the writing process on less advanced students with the aim of defining language awareness.

Furthermore, the findings of the current study revealed that few students found corpus use as a DDL tool ineffective in their writing processes. Considering the fact that students is required to have good research and cognitive skills to utilize corpus as a DDL tool, further studies can examine the effect of individual differences of students such as learning strategies, learning styles, etc.

Conclusion

This chapter had an attempt to present a brief summary of the results of the study and discussed those results with reference to previous studies in the literature. In addition, this chapter also provided pedagogical implications in regards to corpus use as a DDL tool in language teaching and suggestions for further studies.

REFERENCES

Adolphs, S. & Knight, D. (2008). Multi-modal corpus pragmatics: The case of active listenership. In J. Romero-Trillo (Eds.), *Pragmatics and corpus linguistics: A mutualistic entente* (pp. 175-190). Berlin: Mouton de Gruyter.

Akkoç, B. (2017). *A corpus based approach to the identification and classification of translation errors committed by ELT students in Turkish context*. Master's Thesis, Çukurova University Institute of Social Sciences, Adana, Turkey.

Alderson, C. (1996). Do corpora have a role in language assessment? In J. Thomas & M. Short (Eds.), *Using corpora for language research* (pp. 248-259). London: Longman.

Alshaar, A. & AbuSeileek, A. F. (2013). Using concordancing and word processing to improve EFL graduate students' written English. *JALT CALL Journal, 9*(1), 59-77.

Applebee, A. N. (1986). Problems in process approaches: Toward a reconceptualization of process instruction. In A. R. Petrosky & D. Bartholomae (Eds.), *The teaching of writing* (pp. 95-113). Chicago, III: National Society for the study of Education.

Arapoff, N. (1967). Writing: A thinking process. *TESOL Quarterly, 1*(2), 33-39.

Arndt, V. (1993). Response to writing: Using feedback to inform the writing process. In M. Brook & L. Walters (Eds.), *Teaching composition around the Pacific Rim: Politics and pedagogy* (pp. 90-116). Clevedon: Multilingual Matters.

Aşık, A., Vural, A. & Akpınar, K. D. (2016). Lexical awareness and development through data driven learning: Attitudes and beliefs of EFL learners. *Journal of Education and Training Studies, 4*(3), 87-96.

Aston, G. & Burnard, L. (1998). *The BNC handbook: Exploring the British National Corpus with SARA*. Edinburgh: Edinburgh University.

Atkins, S., Clear, J. & Ostler, N. (1992). Corpus design criteria. *Literary and Linguistic Computing*, *7*(1), 1-16.

Babanoğlu, M. P. (2012). *A corpus-based study on Turkish EFL learners' written English: The use of adverbial connectors by Turkish learners*. Doctoral Dissertation, Çukurova University Institute of Social Sciences, Adana, Turkey.

Balcı, A. (2007). *Sosyal bilimlerde araştırma: Yöntem, teknik ve ilkeler*. Ankara: Pegem.

Baleghizadeh, S. & Dadashi, M. (2011). The effect of direct and indirect corrective feedback on students' spelling errors. *Profile Issues in Teachers` Professional Development, 13*(1), 129-137.

Barbieri, F. & Eckhardt E. B. (2007). Applying corpus-based findings to form-focused instruction: The case of reported speech. *Language Teaching Research, 11*(3), 319-346.

Bardine, B. A., Bardine M. S. & Deegan E. F. (2000). Beyond the red pen: Clarifying our role in the response process. *The English Journal*, *90*(1), 94-101.

Barker, F. (2014). Using corpora to design assessment. *The Companion to Language Assessment, 8*(61), 1013–1028.

Barnett, M. A. (1989). Writing as a process. *The French Review, 63*(1), 31-44.

Bates, L., Lane, J., & Lange, E. (1993). *Writing clearly: Responding to ESL composition*. Boston: Heinle and Heinle.

Baydal, D. (2016). *A corpus based study on vocabulary of an A2 level English coursebook.* Master's Thesis, Ondokuz Mayıs University Institute of Educational Sciences, Samsun, Turkey.

Beach, R. & Friedrich, T. (2006). Response to writing. In C. A. McArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research.* (pp. 222-234). New York: The Guilford.

Belz, J. A. & Vyatkina, N. (2005). Learner corpus analysis and the development of L2 pragmatic competence in networked inter-cultural language study: The case of German modal particles. *Canadian Modern Language Review, 62*(1), 17-48.

Belz, J. A. & Vyatkina, N. (2008). The pedagogical mediation of a developmental learner corpus for classroom-based language instruction. *Language Learning &*

Technology, 12(3), 33-52.

Benavides, C. (2015). Using a corpus in a 300-level Spanish grammar course. *Foreign Language Annals, 48(*2) 218–235.

Bernardini, S. (2001). Spoilt for choice: A learner explores general learner corpora. In G. Aston (Eds.), *Learning with corpora* (pp. 220-249). Houston: Athelstan.

Biber, D. (2009). Corpus-based and corpus-driven analyses of language variation and use. In B. Heine & H. Narrog (Eds.), *The Oxford handbook of linguistic analysis*. (pp. 193-224). Oxford: Oxford University.

Birjandi, P. & Tamjid, N. H. (2011). The role of self-, peer and teacher assessment in promoting Iranian EFL learners' writing performance. *Assessment & Evaluation in Higher Education, 37*(5), 513-533.

Bitchener, J. & Knoch, U. (2010). The contribution of written corrective feedback to language development: A ten month investigation. *Applied Linguistics*, *31*(2), 193–214.

Bitchener, J., & Ferris, D. R. (2012). *Written corrective feedback in second language acquisition and writing*. New York, NY: Routledge.

Bitchener, J., Young, S. & Cameron, D. (2005). The effect of different types of corrective feedback on ESL student writing. *Journal of Second Language Writing, 14*(3), 191-205.

Bitzer, L. (1968). The rhetorical situation. *Philosophy and Rhetoric, 1*, 1-14.

Bolton, K., Nelson, G. & Hung, J. (2002). A corpus-based study of connectors in student writing: Research from the International Corpus of English in Hong Kong (ICE-HK). *International Journal of Corpus Linguistics, 7*(2), 165 –182.

Boulton, A. (2009). Testing the limits of data-driven learning: Language proficiency and training. *ReCALL, 21*(1), 37-54.

Braddock, R., Lloyd-Jones, R. & Schoer, L. (1963). *Research in written composition*. Champaign: National Council of Teachers of English.

Breyer, Y. (2009). Learning and teaching with corpora: Reflections by student teachers. *Computer Assisted Language Learning. 22*(2), 153-172.

Brinko, K. (1993). The practice of giving feedback to improve teaching. *Journal of Higher*

Education, 64(5), 574–593.

Brown, H. D. (2001). *Teaching by principles: An interactive approach to language pedagogy* (2nd Eds.). New York: Addison Wesley Longman.

Burke, K. (2009). *How to assess authentic learning*. Thousand Oaks, Calif.: Sage.

Byrne, D. (1988). *Teaching writing skills*. London: Longman.

Campoy, M. C., Furtuno, B. B & Valor, M. L. G. (2010). *Corpus-based approaches to English language teaching*. New York, NY: Continuum International.

Carroll, J. A., Potthoff, D., & Huber, T. (1996). Learnings from three years of portfolio use in teacher education. *Journal of Teacher Education, 47*, 253–262.

Caulk, N. (1994). Comparing teacher and student responses to written work. *TESOL Quarterly, 28*(1), 181–187.

Cavanagh, S. (1997). Content analysis: Concepts, methods, and applications. *Nurse Researchers, 4*(3). 5-16.

Çelebi, H. (2012). *Extracting and analyzing impoliteness in corpora: A study based on The British National Corpus and The Spoken Turkish Corpus*. Doctoral Dissertation, Middle East Technical University Institute of Social Studies, Ankara, Turkey.

Chambers, A. & Kelly, V. (2004). Semi-specialized corpora of written French as a resource in language teaching and learning. *Teanga, 21*, 114-133.

Chambers, A. & O'Sullivan, I. (2004). Corpus consultation and advanced learners' writing skills in French. *ReCALL, 16*(1), 158-172.

Chambers, A. (2010). What is data driven learning? In A. O'Keeffe & M. McCarthy (Eds.), *The Routledge handbook of corpus linguistics* (pp. 345-358). London and New York: Routledge.

Chan, T. & Liou, H. C. (2007). Effects of web-based concordancing instruction on EFL students' learning of verb–noun collocations. *Computer Assisted Language Learning, 18*(3), 231-251.

Chandler, J. (2003). The efficacy of various kinds of error feedback for improvement in the accuracy and fluency of L2 student writing. *Journal of Second Language Writing, 12*(3), 267-296.

Chandrasegaran, A. (1989). *Workshop: Developing, planning, and reviewing skills in*

composition. Paper presented at the RELC Conference, SAEMEO, Singapore.

Chang, W. L. & Sun, Y. C. (2009). Scaffolding and web concordancers as support for language learning, *Computer Assisted Language Learning, 22*(4), 283-302.

Chastain, K. (1988). *Developing second language skills: Theory and practice*. New York: Harcourt Brace Jovanovich.

Chatpunnarangsee, K. (2013). *Incorporating corpus technology to facilitate learning of English collocations in a Thai university EFL writing course*. Doctoral Dissertation, Indiana University School of Education, Bloomington, United States.

Chaudron, C. (1984). The effects of feedback on students' composition revisions. *RELC Journal, 15*(2), 1–15.

Chen, M., Huang, T., Chang, J. S. & Liou, H. C. (2013). Developing a corpus-based paraphrase tool to improve EFL learners' writing skills. *Computer Assisted Language Learning, 28*(1), 22-40.

Cheng, W. & Warren, M. (1996). Hong Kong students' attitudes toward peer assessment in English language courses. *Asian Journal of English Language Teaching, 6*, 61-75.

Chomsky, N. (1968). *Language and mind*. New York: Harcourt, Brace & World.

Cobb, T. (1997). Is there any measurable learning from hands-on concordancing? *System, 25*(3), 301-315.

Cohen, L., Manion L. & Morrion, K. (2005). *Research methods in education* (5th Eds.). London: RoutledgeFalmer.

Coniam, D. (2004). Concordancing yourself: A personal exploration of academic writing. *Language Awareness, 13*(1). 49-55.

Connors, R. J. & Lunsford, A. A. (1993). Teachers' rhetorical comments on student papers. *College Composition and Communication, 44*(2), 200-223.

Conrad, S. M. & Goldstein L. M. (1999). ESL student revision after teacher-written comments: Text, contexts, and individuals. *Journal of Second Language Writing, 8*(2), 147-179.

Cooper, C. (1975). Research roundup: Measuring growth in writing. *The English Journal, 64*(3), 111-120.

Cotos, E. (2014). Enhancing writing pedagogy with learner corpus data. *ReCALL, 26*(2), 202-224.

Cotterall, S. & Cohen, R. (2003). Scaffolding for second language writers: Producing an academic essay. *ELT Journal, 57*(2), 158–66.

Cowan, R., Choo, J. & Lee, G. S. (2014). Icall for improving Korean L2 writers' ability to edit grammatical errors. *Language Learning & Technology, 18*(3), 193–207.

Cresswell, A. (2000). Self-monitoring in student writing: Developing learner responsibility. *ELT Journal, 54*(3), 235–244.

Crompton, P. (2005). 'Where', 'in which', and 'in that': A corpus-based approach to error analysis. *RELC Journal, 36*(2), 157-176.

Crosthwaite, P. (2017). Retesting the limits of data-driven learning: Feedback and error correction. *Computer Assisted Language Learning, 30*(6), 447-473.

Crystal, D. (1992). *An encyclopedic dictionary of language and languages*. Oxford: Blackwell.

Curtis, A. (2001). Hong Kong student teachers' responses to peer group process writing. *Asian Journal of English Language Teaching, 11*, 129–143.

Daskalovska, N. (2015). Corpus-based versus traditional learning of collocations. *Computer Assisted Language Learning, 28*(2), 130-144.

Dershimer, R. (1976). *The federal government and educational R&D*. Lexington, MA: Lexington Books.

Dey, I. (1993). *Qualitative data analysis: A user friendly guide for social scientists*. London: Routledge.

Diab, N. (2009). *The effects of peer-versus self-editing on learner autonomy in ESL writing*. Doctoral Dissertation, University of Leicester School of Education, Leicester, UK.

Dickinson, M. & Lee, C. M. (2009). Modifying corpus annotation to support the analysis of learner language. *CALICO Journal, 26*(3), 545-561.

Dixon, J. (1967). *Growth through English*. Reading, UK: National Association for the Teaching of English.

Dörnyei, Z. (2007). *Research methods in applied linguistics*. Oxford: Oxford.

Ekşi, G. (2012). Peer review versus teacher feedback: How effective. *International Journal of Applied Educational Studies, 13*(1), 33-48.

Ekşi, G. Y. & Aşık, A. (2016). Coursebooks and spoken discourse: The issue of authenticity with discussion over corpus and feedback from native speakers. In İ. H. Mirici, İ. H. Erten, H. Öz, & I. V. Krstanović (Eds.), *Research papers on teaching English as an additional language* (pp. 89-102). Rijeka: Rijeka University Library CIP.

Elbow, P. (1981). *Writing with power*. London: Oxford University.

Ellis, R. Sheen, Y., Murakami, M. & Takashimae, H. (2008). The effects of focused and unfocused written corrective feedback in an English as a foreign language context. *System, 36*(3), 353-371.

Emig, J. (1971). *The Composing Process of Twelfth Graders*. Urbana, IL: National Council of Teachers of English.

Enginarlar, H. (1993). Student response to teacher feedback in EFL writing. *System, 21*(2), 193–204.

Ergül, Y. (2014). *The effectiveness of using corpus-based materials in vocabulary teaching*. Master's Thesis, Pamukkale University Institute of Educational Sciences, Denizli, Turkey.

Ersanlı, C. Y. (2015). Insights from a learner corpus as opposed to a native corpus about cohesive devices in an academic writing context. *Universal Journal of Educational Research, 3*(12), 1049 - 1053.

Escholz, P. A. (1980). The prose model approach: Using products in the process. In T. R. Donovan & B. W. McChelland (Eds.), *Eight approaches to teaching composition* (pp. 21-36). Illinois: National Council of Teachers of English.

Faigley, L. & Witte, S. (1981). Analyzing revision. *College Composition and Communication, 32*(4), 400-414.

Fathman, A. K., & Whalley, E. (1990). Teacher response to student writing: Focus on form versus content. In B. Kroll (Eds.), *Second language writing: Research insights for the classroom* (pp. 178–190). Cambridge, UK: Cambridge University.

Fazio, L. L. (2001). The effect of corrections and commentaries on the journal writing accuracy of minority- and majority-language students. *Journal of Second Language*

Writing, *10*(4), 235-249.

Feng, H. (2014). The use of corpus concordancing for second language learners' self error-correction. *Journal of Interactive Learning Research, 25*(1), 2-25.

Ferris, D. (2002). *Treatment of error in second language student writing*. Ann Arbor, MI: The University of Michigan.

Ferris, D. (2006). Does error feedback help student writers? New evidence on the short-and long-term effects of written error correction. In K. Hyland & F. Hyland (Eds.), *Feedback in second language writing: Contexts and issues* (pp. 81-104). New York, NY: Cambridge University.

Ferris, D. (2012). Written corrective feedback in second language acquisition and writing studies. *Language Teaching*, *45*(4), 446-459.

Ferris, D. (1997). The influence of teacher commentary on student revision. *TESOL Quarterly*, *31*(2), 315-339.

Ferris, D., & Roberts, B. (2001). Error feedback in L2 writing classes: How explicit does it need to be? *Journal of Second Language Writing*, *10*(3), 161–184.

Ferris, D., Pezone, S., Tade, C., & Tinti, S. (1997). Teacher commentary on student writing: Descriptions and implications. *Journal of Second Language Writing 6*(2), 155–182.

Flower, L. & Hayes, J. R. (1981). A cognitive process theory of writing. *College Composition and Communication*, *32*(4), 365-387.

Flower, L. S. & Hayes, J. R. (1977). Problem solving strategies and the writing process. *College English*, *39*(4), 449-461.

Flower, L. S. & Hayes, J. R. (1980). The dynamics of composing: Making plans and juggling constrains. In L. W. Gregg & E. R. Steinberg (Eds.), *Cognitive process in writing* (pp. 31-50). Hillsdale, NJ: Erlbaum.

Flower, L. S. (1979). Writer-based prose: A cognitive basis for problems in writing. *College English*, *41*(1), 19-37.

Flower, L. S. (1994). *The construction of negotiated meaning: A social cognitive theory of writing*. Illinois, USA: Southern Illinois University.

Flowerdew, L. (2003). A combined corpus and systemic-functional analysis of the problem-solution pattern in a student and professional corpus of technical writing.

TESOL Quarterly, 37(3), 489-511.

Frantzen, D. (1995). The effects of grammar supplementation on written accuracy in an intermediate Spanish content course. *The Modern Language Journal, 79*(3), 329–344.

Freedman, S. & Sperling, M. (1985). Written language acquisition: The role of response and the writing conference. In S. W. Freedman (Eds.), *The acquisition of written knowledge: Response and revision* (pp. 106-130). Norwood, NJ: Ablex.

Gabel, S. (2010). Over-indulgence and under-representation in interlanguage: Reflections on the utilization of concordancers in self-directed foreign language learning. *Computer Assisted Language Learning, 14*(3), 269-288.

Gabrielatos, C. (2002). EFL writing: Product and process. Retrieved on 14 July 2018 from https://www.researchgate.net/publication/234624105_EFL_Writing_Product_and_Process

Gabrielatos, C. (2006) *Corpus-based evaluation of pedagogical materials: If- conditionals in ELT coursebooks and the BNC*. Paper presented at 7th Teaching and Language Corpora Conference, Paris, France.

Gaskell, D. & Cobb, Y. (2004). Can learners use concordance feedback for writing errors? *System, 32*(3), 301-319.

Ghandi, M. & Maghsoudi, M. (2014). The effect of direct and indirect corrective feedback on Iranian EFL learners' spelling errors. *English Language Teaching, 7*(8), 53-61.

Gilquin, G. & Granger, S. (2010). How can data-driven learning be used in language teaching? In A. O'Keeffe & M. McCarthy (Eds.), *The Routledge handbook of corpus linguistics* (pp. 359-370). London and New York: Routledge.

Girgin, U. (2011). *Corpus-based activities at lower levels of EFL proficiency: the effectiveness of using concordance lines on grammar learning*. Master's Thesis, Bilkent University Institute of Educational Sciences, Ankara, Turkey.

Godwin-Jones, R. (2001). Emerging technologies. *Language Learning & Technology, 5*(2), 8-12.

Gökçe, K. & Derin, A. (2007). The effects of peer feedback on the writing anxiety of prospective Turkish teachers of EFL. *Journal of Theory Practice in Education, 3*(1),

12-23.

Goldstein, L. (2001). For Kyla: What does the research say about responding to ESL writers. In T. Silva & P. Matsuda (Eds.), *On second language writing* (pp.73-90). Mahwah, NJ: Lawrence Erlbaum.

Gordani, Y. (2013). The effect of the integration of corpora in reading comprehension classrooms on English as a foreign language learners' vocabulary development. *Computer Assisted Language Learning, 26*(5), 430-445.

Granger, S. (2003). Error-tagged learner corpora and CALL: A promising synergy. *CALICO Journal, 20*(3), 465-480.

Guerrero, M. & Villamil, O. (1994). Social-cognitive dimensions of interaction in L2 peer revision. *The Modern Language Journal, 78*(4), 484–496.

Hamp-Lyons, L. & Heasly, B. (2006). *Study writing: A course in written English for academic purposes*. Cambridge: Cambridge University.

Hanson-Smith, E. (1993). Dancing with concordances. *CAELL, 4*(2), 40.

Harwood, N. (2005). Nowhere has anyone attempted … In this article I aim to do just that': A corpus-based study of self-promotional I and we in academic writing across four disciplines. *Journal of Pragmatics, 37*(8), 1207-1231.

Hedgcock, J. & Lefkowitz, N. (1994). Feedback on feedback: Assessing learner receptivity to teacher response in L2 composing. *Journal of Second Language Writing*, *3*(2), 141-163.

Hedgcock, J. & Lefkowitz, N. (1996). Some input on input: Two analyses of student response to expert feedback in L2 writing. *The Modern Language Journal*, *80*(3), 287-308.

Hedge, T. (1988). *Writing*. Oxford: Oxford University.

Hegelheimer, V. (2007). Helping ESL writers through a multimodal, corpus-based, online grammar resource. *CALICO Journal, 24*(1), 5-32.

Herman, G. (1986). How to make (French) composition challenging and productive. *The French Review, 60*(1), 56-64.

Holec, H. (1981). *Autonomy and foreign language learning*. Oxford: Pergamon.

Horst, M., Cobb, T. & Nicolae, I. (2005). Expanding academic vocabulary with an

interactive online database. *Language Learning & Technology, 9*(2), 90-110.

Hunston, S. (2002). *Corpora in applied linguistics*. Cambridge: Cambridge University.

Hyland, F. (1998). The impact of teacher written feedback on individual writers. *Journal of Second Language Writing, 7*(3), 255–286.

Hyland, F. (2000). Teacher management of writing workshops: Two case studies. *Canadian Modern Language Review, 57*(2), 272–294.

Hyland, F. (2001a). Providing effective support: Investigating feedback to distance language learners. *Open Learning, 16*(3), 233–247.

Hyland, F. (2001b). Dealing with plagiarism when giving feedback. *English Language Teaching Journal, 55*(4), 375–382.

Hyland, K. & Hyland, F. (2006). Feedback on second language students' writing. *Language Teaching, 39*(2), 83-101.

Hyland, K. (2003). *Second language writing*. New York: Cambridge University.

Jacobs, G. M., Curtis, A., Braine, G., & Huang, S. (1998). Feedback on student writing: Taking the middle path. *Journal of Second Language Writing, 7*(3), 307-317.

Jamalinesari, A., Rahimi, F., Gowhary, H. & Azizifar, A. (2015). The effects of teacher-written direct vs. indirect feedback on students' writing. *Procedia - Social and Behavioral Sciences, 192*, 116 – 123.

Johansson, S., Leech, G. N. & Goodluck, H. (1978). *The Lancaster-Oslo/Bergen corpus of British English*. Department of English, Oslo University.

Johns, T. (1986). Micro-Concord: A language learner's research tool. *System, 14*(2), 151-162.

Johns, T. (1991a). Should you be persuaded: Two samples of data driven learning materials. *ELR Journal, 4*, 27-45.

Johns, T. (1991b). From printout to handout: Grammar and vocabulary teaching in the context of data-driven learning. In T. Johns & P. King (Eds.), *Classroom concordancing (Special edition: English Language Research Journal, 4* (pp. 1-16). Birmingham: Birmingham University.

Johns, T. (2002). Data-driven learning: The perpetual challenge. In B. Kettemann & G. Marko (Eds.), *Teaching and learning by doing corpus analysis* (pp. 107-117). The

Netherlands: Rodopi.

Johnston, H. (1993). The use of video self-assessment, peer-assessment, and instructor feedback in evaluating conducting skills in music student teachers. *British Journal of Music Education, 10*(1), 57-63.

Kaszubski, P. & Wojnowska, A. (2003). Corpus-informed exercises for learners of English: The TestBuilder program. In E. Oleksy & B. Lewandowska-Tomaszczyk (Eds.), *Research and scholarship in integration process: Poland-USA-EU* (pp. 337-354). Lodz: Lodz University.

Kaur, J. & Hegelheimer, V. (2005). ESL students' use of concordance in the transfer of academic word knowledge: An exploratory study. *Computer Assisted Language Learning, 18*(4), 287-310.

Kazaz, İ. (2015). *Corpus-aided language pedagogy: the use of concordance lines in vocabulary instruction*. Master's Thesis, Bilkent University Institute of Educational Sciences, Ankara, Turkey.

Kennedy, C. & Miceli, T. (2001). An evaluation of intermediate students' approaches to corpus investigation. *Language Learning & Technology, 5*(3), 77-90.

Kennedy, C. & Miceli, T. (2010). Corpus-assisted creative writing: Introducing intermediate Italian learners to a corpus as a reference resource. *Language Learning & Technology. 14*(1). 28-44.

Kennedy, C. & Miceli, T. (2016). Cultivating effective corpus use by language learners. *Computer Assisted Language Learning, 30*(1), 91-114.

Kennedy, G. (1998). *An introduction to corpus linguistics*. London: Routledge.

Kepner, C. G. (1991). An experiment in the relationship of types of written feedback to the development of second-language writing skills. *The Modern Language Journal, 75*(3), 305-313.

Keppel, F. (1965). The national commitment to education. *Phi Delta Kappan, 47*, 167-168.

Knoblauch, C. H. & Brannon, L. (1981). Teacher commentary on student writing: The state of the art. *Freshman English News, 10*(2), 1-4.

Knowles, G. (1990). The use of spoken and written corpora in the teaching of language and linguistics. *Literary and Linguistic Computing, 5*(1), 45–48.

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

Kreshen, S. (1984). *Writing: Research, theory and applications*. Oxford: Pergamon Institute of English.

Kupetz, R. & Zeigenmeyer, B. (2006). Flexible learning activities fostering autonomy in teaching training. *ReCALL, 18*(1), 63-82.

Lai, S. L. & Chen, H. H. (2015). Dictionaries vs concordancers: Actual practice of the two different tools in EFL writing. *Computer Assisted Language Learning, 28*(4), 341-363.

Lalande, J. F. (1982). Reducing composition errors: An experiment. *The Modern Language Journal, 66*(2), 140–149.

Laufer, B. & Waldman, T. (2011). Verb-noun collocations in second language writing: A corpus analysis of learners' English. *Language Learning, 61*(2), 647-672.

Lee, S. H., Jang, S. B., & Seo, S. K. (2009). Annotation of Korean learner corpora for particle error detection. *CALICO Journal, 26*(3), 529-544.

Leech, G. (1992). Corpora and theories of linguistic performance. In J. Svartvik (Eds.), *Directions in corpus linguistics* (pp. 105-122). New York: Mouton de Gruyter.

Leech, G. (1997). Grammatical tagging. In R. Garside, G. Leech, & T. McEnery (Eds.), *Corpus annotation: Linguistic information from computer text corpora* (pp. 19-33). London: Longman.

Leki, I. (1990). Coaching from the margins: Issues in written response. In B. Kroll (Eds.), *Second language writing* (pp. 57-68). Cambridge, UK: Cambridge University.

Leki, I. (1991). The preferences of ESL students for error correction in college level writing classes. *Foreign Language Annals, 24*(3), 203–218.

Lin, S. S. J., Liu, E. Z. F., & Yuan, S. M. (2001). Web-based peer assessment: Feedback for students with various thinking-styles. *Journal of Computer Assisted Learning, 17*(4), 420-432.

Liu, D. & Jiang, P. (2009). Using a corpus-based lexicogrammatical approach to grammar instruction in EFL and ESL contexts. *The Modern Language Journal, 93*(1), 61-

78.

Liu, J., & Hansen, J. (2002). *Peer response in second language writing classrooms*. Ann Arbor: University of Michigan Press.

Liu, Y. H. & Liu, Z. Q. (2011). A corpus-based study of college English coursebooks. *Advanced Materials Research, 204*(210), 1990-1993.

Locke, T. (2015). *Developing writing teachers: Practical ways for teacher-writers to transform their classroom practice*. New York: Routledge.

Lowenthal, P & Muth, R. (2008) Constructivism. In E. F Provenzo. Jr (Eds.). *Encyclopedia of the social and cultural foundation of education* (pp. 177-179). Thousand Oaks, CA: Sage.

Lu, H.C., Hung, S.Y. & Lu, L.H. (2016). The application of a learners' corpus for self-correction in written compositions. *Porta Linguarum, 26*, 149-159.

Luo, Q. (2016). Application of data-driven learning in EFL writing instructions for engineering students. *World Transactions on Engineering and Technology Education, 13*(3), 238-244.

Maarof, N., Yamat, H., & Li, K. L. (2011). Role of teacher, peer and teacher-peer feedback in enhancing ESL students' writing. *World Applied Sciences Journal, 15*, 29-35.

Mabry, L. (1999). Writing to the rubric: Lingering effects of traditional standardized testing on direct writing assessment. *Phi Delta Kappan, 80*(9), 673-679.

Maddalena, S. R. (2001). An investigation into how corpus analysis may be used in the second language classroom to solve some of the problems surrounding non-native speakers' understanding of seemingly synonymous words. Retrieved December 05, 2017 from ERIC database.

Mair, C. (2002). Enpowering non-native speakers: The hidden surplus value of corpora in continental English departments. In B. Kettemann & G. Marko (Eds.), *Teaching and learning by doing corpus analysis* (pp.30-119). Amsterdam: John Benjamins.

McCarthy, M. & O'Keeffe, A. (2010). Historical perspective: What are corpus and how they evolved? In A. O'Keeffe & M McCarthy (Eds.), *The Routledge handbook of corpus linguistics* (pp. 3-13). London and New York: Routledge.

McCarthy, P., Meier, S., & Rinderer, R. (1985). Self-efficacy and writing: A different view

of self-evaluation. *College Composition and Communication, 36*(4), 465-471.

McEnery, A. & Wilson, A. (2001). *Corpus linguistics: An introduction*. Edinburgh: Edingburgh University.

McEnery, T. & Xiao, R. (2010). What corpora can offer in language teaching and learning. In E. Hinkel (Eds.), *Handbook of research in second language teaching and learning vol. 2* (pp. 364-380). London & New York: Routledge.

McEnery, T., Xiao, R., & Tono, Y. (2006). *Corpus-based language studies. An advanced resource book*. London: Routledge.

Mendoca, C. & Johnson, K. (1994). Peer review negotiations: Revision activities in ESL writing instruction. *TESOL Quarterly, 28*(4), 745–768.

Miles, M. B. & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks, CA: Sage.

Mindt, D. (1996). English corpus linguistics and the foreign language teaching syllabus. In J. Thomas & M. Short (Eds.), *Using corpora for language research* (pp. 232-247). London & New York: Longman.

Mindt, D. (2000). *An empirical grammar of the English verb system.* Berlin: Cornelsen.

Mittan, R. (1989). The peer review process: Harnessing students' communicative power. In D. Johnson & D. Roen (Eds.), *Richness in writing: Empowering ESL students* (pp. 207-219). New York: Longman.

Möllering, M. (2001). Teaching German modal particles: a corpus-based approach. *Language Learning and Technology, 5*(3), 130-151.

Murray, D. M. (2009). Teach writing as a process not product. In T. Newkirk & L. C. Miller (Eds.), *The essential Don Murray: Lessons from America's greatest writing teacher*. Portsmouth, NH: Boynton/Cook Publishers.

Myhill, D., Fisher, R., Jones, S., & Lines, H. (2008). *Effective ways of teaching complex expression in writing. A literature review of evidence from the secondary school phase (Research Report no. DCSF-RR032).* London, UK: The Department for Children, Schools and Families (DCSF).

Nelson, G. & Carson, J. (1998). ESL students' perceptions of effectiveness in peer response groups. *Journal of Second Language Writing, 7*(1), 113–131.

Nesselhauf, N. (2004). Hoe learner corpus analysis can contribute to language teaching: A study of support verb constructions. In G. Aston, A. Bernardini & D. Stewart (Eds.), *Corpora and language learners* (pp. 109-124). Amsterdam: John Benjamins.

Nitko, A. J. (2001). *Educational assessment of students* (3rd Eds.). Des Moines: Prentice-Hall Order Processing Center.

Nunan, D. (1991). *Language teaching methodology: A textbook for teachers*. Edinburgh: Longman.

Nunan, D. (1999). *Second English teaching and learning*. Boston: Heinle & Heinle.

Nystrand, M. (2006). The social and historical context for writing research. In C. A. McArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research*. (pp. 67-80). New York: The Guilford.

O'Keeffe, A., McCarthy, M. & Carter, R. (2007). *From corpus to classroom: Language use and language teaching*. Cambridge: Cambridge University.

O'Sullivan, I. (2007). Enhancing a process-oriented approach to literacy and language learning: The role of corpus consultation literacy. *ReCALL, 19*(3), 269-286.

Odell, L. (1980). The process of writing and the process of learning. *College Composition and Communication, 31*(1), 42-50.

Onozawa, C. (2010). A study of the process writing approach: A suggestion for an eclectic writing approach. *Proceedings of Kyoai Gakuen College, Japan, 10*, 153-163.

Osterholm, K. K. (1986). Writing in the native language. In B. H. Wing (Eds.), *Listening, reading, and writing: Analysis and application* (pp. 43-117). Middlebury, VT: Northeast Conference.

O'Sullivan, I. & Chambers, A. (2006). Learners' writing skills in French: Corpus consultation and learner evaluation. *Journal of Second Language Writing, 15*(1), 49-68.

Özbay, A. Ş. (2015). *Corpus analysis of the support verb construction development and use by EFL learners.* Doctoral Dissertation, Black Sea Technical University Institute of Social Sciences, Trabzon, Turkey.

Özcan, G. (2015). *A corpus-driven analysis of 'evet' and hı-hı in Turkish: Evidence from the spoken Turkish corpus*. Master's Thesis, Mersin University Institute of Social

Sciences, Mersin, Turkey.

Patton, M. (1990). *Qualitative evaluation and research methods.* Beverly Hills, CA: Sage.

Peksoy, E. (2013). *The corpus-based analysis of authenticity of ELT course books used in high schools in Turkey*. Master's Thesis, Dicle University Institute of Educational Sciences, Diyarbakır, Turkey.

Perry, F. L. (2005). *Research in applied linguistics*. Lawrence Erlbaum Associates, Inc.

Plutsky, S. & Wilson, B. A. (2004). Comparison of three methods for teaching and evaluating writing: A quasi-experimental study. *Delta Pi Epsilon Journal, 46*(1), 50-61.

Polio, C., Fleck, C., & Leder, N. (1998). "If I only had more time": ESL learners' changes in linguistic accuracy on essay revisions. *Journal of Second Language Writing, 7*(1), 43–68.

Poole, R. (2012). Concordance-based glosses for academic vocabulary acquisition. *CALICO Journal, 29*(4), 679-693.

Qiao, H. & Sussex, R. (1996). Using the Longman Mini-Concordancer on tagged and parsed corpora, with specific reference to their use as an aid to grammar learning. *System, 24*(1), 41-64.

Quinn, C. (2015). Training L2 writers to reference corpora as a self-correction tool. *ELT Journal, 69*(2), 165–177.

Radecki, P. & Swales, J. (1988). ESL student reaction to written comments on their work. *System, 16*(3), 355–365.

Raimes, A. (1992). *Exploring through writing: A process approach to ESL composition*. Cambridge: Cambridge University.

Rennie, C. E. (2000). *Error correction in ESL writing: Student views*. Master's Thesis, California State University Department of English, Sacramento, California.

Reynolds, B. L. (2016). Action research: Applying a bilingual parallel corpus collocational concordancer to Taiwanese medical school EFL academic writing. *RELC Journal, 47*(2), 213-227.

Richer, D. L. (1992). The effects of two feedback systems on first year college students' writing proficiency. *Dissertation Abstracts International, 53*(08A), 2722.

Robb, T., Ross, S. & Shortreed, I. (1986). Salience of feedback on error and its effect on EFL writing quality. *TESOL Quarterly, 20*(1), 83-96.

Rohman, D. G. & Wlecke, A. O. (1964). *Pre-writing, the construction and application of models for concept formation in writing*. East Lansing: Michigan State University.

Ross, J., Rolheiser, C., & Hogaboam-Gray, A. (1999). Effects of self-evaluation training on narrative writing. *Assessing Writing, 6*(1), 107-132.

Rutherford, W. E. (1987). *Second language grammar: learning and teaching*. London and New York: Routledge.

Saeed, N. A. & Waly, S. (2010). Corpus for classrooms: Ideas for material design. Retrieved December 05, 2018 from dbe.metu.edu.tr/convention/proceedingsweb/Corpus.pdf

Saito, H. (1994). Teachers' practices and students' preferences for feedback on second language writing: A case study of adult ESL learners. *TESL Canada Journal 11*(2), 46–70.

Schmidt, R. (2001). Attention. In P. Robinson (Eds.), *Cognition and second language instruction* (pp. 3-32). Cambridge: CUP.

Schunk, D. H. & Swartz, C. W. (1993). Goals and progress feedback: Effects on self-efficacy and writing achievement. *Contemporary Educational Psychology*, *18*(3), 337-354.

Scott, M. & Tribble, C. (2006). *Textual patterns: Key words and corpus analysis in language education*. Amsterdam/Philadelphia: John Benjamins.

Sengupta, S. (1998). Peer evaluation: 'I am not the teacher'. *ELT Journal, 52*(1), 19–28.

Sheen, Y. (2007). The effect of focused written corrective feedback and language aptitude on ESL learners' acquisition of articles. *TESOL Quarterly*, *41*(2), 255-283.

Shei, C. C. & Pain, H. (2000). An ESL writer's collocational aid. *Computer Assisted Language Learning, 13*(2), 167-182.

Sheppard, K. (1992). Two feedback types: Do they make a difference? *RELC Journal, 23*(1), 203-110.

Simpson, J. M. (2006). Feedback on writing: Changing EFL students' attitudes. *TESL Canada Journal*, *24*(1), 96-112.

Simpson, R. & Mendis, D. (2003). A corpus-based study of idioms in academic speech. *TESOL Quarterly, 27*(3), 419-441.

Sinclair, J. (1982). Reflection on computer corpora in English language research. In S. Johansson (Eds.), *Computer corpora in English language research* (pp. 1-6). Bergen: Norwegian Computing Centre for the Humanities.

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

Sinclair, J. (1996). The empty lexicon. *International Journal of Corpus Linguistics, 1*(1), 99-119.

Sinclair, J. (2004). *How to use corpora in language teaching*. Amsterdam: John Benjamins.

Smith, S. (1997). The genre of the end comment: Conventions in teacher responses to student writing. *College Composition and Communication*, *48*(2), 249-268.

Smith, S. (2011). Learner construction of corpora for general English in Taiwan. *Computer Assisted Language Learning, 24*(4), 291-316.

Starnes, T. D. & Noyes, E. G. (1991). *The English dictionary from Cawdrey to Johnson 1604-1755*. Amsterdam/ Philadelphia: John Benjamins.

Steele, V. (1992). *Product and process writing: A comparison*. Rowley: Newbury House.

Stevens, V. (1991). Classroom concordancing: Vocabulary materials derived from relevant, authentic text. *English for Specific Purposes, 10*(1), 35-46.

Stoddard, B. & MacArthur, C. (1993). A peer editor strategy: Guiding learning disabled students in response and revision. *Research in the Teaching of English, 27*(1), 76–103.

Straub, R. (1997). Students' reactions to teacher comments: An exploratory study. *Research in the Teaching of English*, *31*(1), 91-119.

Sun, Y. C. (2007). Learner perceptions of a concordancing tool for academic writing. *Computer Assisted Language Learning*, *20*(4), 323-343.

Suzuki, M. (2008). Japanese learners' self-revisions and peer revisions of their written compositions in English. *TESOL Quarterly*, *42*(2), 209–233.

Svartvik, J. (1992). *Directions in corpus linguistics*. Berlin: Mouton de Gruyter

Taylor, L. & Barker, F. (2008). Using corpora for language assessment. In E. Shohamy & N. H. Hornberger (Eds.), *Encyclopedia of language and education* (pp. 241- 254). Berlin: Springer.

Thurstun, J. & Candlin, C. N. (1998). Concordancing and the teaching of the vocabulary of academic English. *English for Specific Purposes, 17*(3), 267-280.

Tognini-Bonelli, E. (2010). Theoretical overview of the evolution of corpus linguistics. In A. O'Keeffe & M. McCarthy (Eds.) *The Routledge handbook of corpus linguistics* (pp. 14-27). London and New York: Routledge.

Tolchinsky, L. (2006). The Emergence of writing. In C. A. McArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research*. (pp. 83-95). New York: The Guilford.

Tono, Y., Satake, Y. & Miura, A. (2014). The effect of using corpora on revision tasks in L2 writing with coded error feedback. *ReCALL, 26*(2), 147-162.

Torrance, M. & Galbraith, D. (2006). The processing demands of writing. In C. A. McArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research*. (pp. 67-80). New York: The Guilford.

Truscott, J. & Hsu, A. Y. (2008). Error correction, revision, and learning. *Journal of Second Language Writing, 17*(4), 292-305.

Truscott, J. (1996). The case against grammar correction in L2 writing classes. *Journal of Research in Language Studies, 46*(2), 327-369.

Truscott, J. (2004). Evidence and conjecture on the effect of correction: A response to Chandler. *Journal of Second Language Writing, 13*(4) 337-343.

Tsui, A. B. & Ng, M. (2000). Do secondary L2 writers benefit from peer comments? *Journal of Second Language Writing, 9*(2), 147-170.

Van Beuningen, C. (2010). Corrective feedback in L2 writing: Theoretical perspectives, empirical insights, and future directions. *International Journal of English Studies*, *10*(2), 1-27.

Vatz, R. E. (1973). The myth of the rhetorical situation. *Philosophy and Rhetoric, 6*(3), 154-161.

von Glasersfeld, E. (1989). Constructivism in education. In T. Husen & N. Postlethwaite (Eds.), *International encyclopedia in education* (Supplementary Volume, pp. 162-163). Oxford, Pergamon.

Vygotsky, L. S. (1986). *Thought ad language*. Cambridge, MA: MIT Press.

Walker, C. (2011). How a corpus-based study of the factors which influence collocation can help in the teaching of business English. *English for Specific Purposes, 30*(2), 101-112.

Watson, C. B. (1982). The use and abuse of models in the ESL writing class. *TESOL Quarterly*, 16(1), 5-13.

West, M. (1953). *A general service list of English words*. London: Longman.

White, R. V. (1988). Academic writing: Process and product. In P. C. Robinson (Eds.), *Academic writing: process and product* (pp. 4-16). Hong Kong: Modern English Publications in association with The British Council.

Yang, M., Badger, R., & Yu, Z. (2006). A comparative study of peer and teacher feedback in a Chinese EFL writing class. *Journal of Second Language Writing, 15*(3), 179-200.

Yeh, Y., Liou, H. C. & Li, Y. C. (2007). Online synonym materials and concordancing for EFL college writing. *Computer Assisted Language Learning, 20*(2), 131-152.

Yoon, C. (2016). Concordancers and dictionaries as problem-solving tools for ESL academic writing. *Language Learning & Technology, 2*(1), 209-229.

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

Yoon, H. (2008). More than a linguistic reference: The influence of corpus technology on L2 academic writing. *Language Learning & Technology, 12*(2), 31-48.

Young, A. (1978). Creative writing and the sense of form. *Critical Quarterly, 20*(4), 67-72.

Young, R. & Becker A. (1965) Toward a modern theory of rhetoric: A tagmemic contribution. *Harvard Educational Review, 35*(4), 450-468.

Zamel, V. (1985). Responding to student writing. *TESOL Quarterly, 19*(1), 79-101.

Zhang, S. (1995). Re-examining the affective advantages of peer feedback in the ESL writing class. *Journal of Second Language Writing, 4*(3), 209–222.

Zhao, H. (2010). Investigating learners' use and understanding of peer and teacher feedback on writing: A comparative study in a Chinese English writing classroom. *Assessing Writing, 15*(1), 3-17.

APPENDIX

Appendix A (Holistic Rubric)

	Strong Writer 4	Capable Writer 3	Emerging Writer 2	Basic Writer 1
Content (x*30):4	Essay has a specific central idea, and concrete and clear details relevant to assigned topic. Essay is knowledgeable of assigned subject. Supporting ideas are well elaborated on the central idea. Essay includes original ideas.	Essay has a specific central idea, and mostly concrete and clear details relevant to assigned topic. Essay is mostly knowledgeable of assigned subject. Supporting ideas are mostly elaborated on the central idea. Essay includes mostly original ideas.	Central idea is vague and supporting details are limited relevant to assigned topic. Essay is limited knowledgeable of assigned subject. Supporting ideas are limited to elaborate on the central idea. Essay includes limited original ideas.	Essay has no specific central idea and clear details. Essay is not knowledgeable of assigned subject. Supporting ideas are not elaborated and do not focus on the central idea. Essay does not include enough original idea to evaluate.
Organization (x*20):4	Essay is logically organized and well-structured. The expression of the essay is fluent. The ideas are combined coherently.	Essay is logically but incompletely organized and structured. The expression of the essay is mostly fluent. The ideas are mostly combined coherently.	Essay is loosely organized and structured. The expression of the essay is limited fluent. The ideas show limited coherence and communication is impaired.	Essay lacks logical and complete organization and structure. The expression of the essay is not fluent. All/almost all ideas are disconnected and there is almost no communication.
Vocabulary (x*20):4	Essay includes a wide range of vocabulary. Choice and usage of all/almost all vocabulary, phrases and/or idioms are appropriate and effective. All/Almost all word forms are used correctly. All/Almost all vocabulary, phrases, and idioms are appropriate to register.	Essay includes adequate range of vocabulary. The choice and usage of vocabulary, phrases and/or idioms have few errors but meaning is not obscured. The word forms are mostly used correctly. Vocabulary, phrases, and idioms are mostly appropriate to register.	Essay includes limited range of vocabulary. The choice and usage of vocabulary, phrases and/or idioms have frequent errors and meaning is obscured. The word forms are frequently used incorrectly. Vocabulary, phrases, and idioms has frequent errors, register is confused.	Essay includes frequently repeated vocabulary. Errors in the choice and usage of vocabulary, phrases and/or idioms have so frequent that essay does not make sense. All/almost all word forms are used incorrectly. All/almost all vocabulary items, phrases, and idioms are not appropriate to register.
Language Use (x*20):4	Wide range of sentence structure are used. All/Almost all sentence structure in essay are correct, complex, and effective. All/Almost all sentences in essay are formed with correct subject-verb agreement, tense, and word order. All/Almost all articles, pronouns, and prepositions are used correctly. Effective and wide range of transitions and coordinators are used.	Adequate range of sentence structure are used. Sentence structures are mostly correct, complex, effective, Sentences in essay are mostly formed with correct subject-verb agreement, tense, and word order. Articles, pronouns, and prepositions are mostly used correctly. Effective but adequate range of transitions and coordinators are used.	Limited range of sentence structure are used. Errors in sentence structures are frequent, and essay includes basic sentence structure that obscure meaning. Errors in subject-verb agreement, tense, and word order of sentences are frequent that obscure meaning. Errors in articles, pronouns, and prepositions are frequent. Limited range of transitions and coordinators are used.	Frequently repeated sentence structure are used. There are errors in all/almost all sentence structure that sentences do not make any sense. There are errors in all/almost all subject-verb agreement, tense, and word order of sentences that sentences do not make any sense. Any/Almost any transitions and coordinators are used.
Mechanics (x*10):4	All/Almost all punctuation marks are correct and effective. All/Almost all vocabulary items are spelled correctly. All/Almost all first letters are capitalized. All/Almost all paragraph indentation are made.	Punctuation marks are mostly correct and effective. Vocabulary is mostly spelled correctly. First letters are mostly capitalized. Paragraph indentation are mostly made.	Errors in punctuation marks are frequent. Errors in spelling are frequent. Errors in capitalization are frequent. Errors in paragraphing are frequent.	All/Almost all punctuation marks are incorrect and ineffective. All/Almost all vocabulary items are spelled incorrectly. There are errors in all/almost capitalization. There are errors in all/almost paragraphing.

Apendix B (Written Opinion Survey)

Questions

1. Before introduced COCA tool, what kinds of sources do you benefitted from in self-editing and peer-feedback process?

2. How do you benefitted from COCA tool in your writing process?

3. How did you benefitted from COCA tool when giving feedback yo your peers and editing your own writing?

4. Which errors did you correct using COCA?

5. Do you think COCA is effective and useful in improving quality of your writing? Why? Why not?

6. How do you think COCA contribute to your writing process?

7. Do you want to use COCA as a reference tool in your further writings?

Appendix C (PowerPoint Presentation)

CORPUS FOR ENGLISH LANGUAGE TEACHING

RESS. ASSIST. GAMZE EMIR

WHAT IS CORPUS?

- "...a collection of pieces of language, selected and ordered according to explicit linguistic criteria in order to be used as a sample of the language."

(Sinclair, 1996)

- A collection of 'real word' language samples
- Principled selection of language (one language, one genre type, etc.)
- Usually electronic and searchable
- Used for language research and teaching



2

SOME EXAMPLES OF CORPORA

- Bank of English (COBUILD– 650 millions words)
- Michigan Corpus for Academic Spoken English (MICASE)
- Brigham Young University Corpora
  - Includes Corpus for Contemporary American English (COCA – 520 millions words)
- Corpus of Global Web-based English (GloWbE – 1.9 millions words).
- British National Corpus (BNC – over 100 billions words)

3

WHAT CAN CORPORA SHOW US?

- **Word Frequency**

What are the top 500 words in this language? How often does the Word 'jocular' or 'pickle' occur?

- **Word Clusters**

Which short of expressions are common? (e.g.'you know what I mean?','Do you want me to?')

- **Collocations**

Which words do typically go with? (weak coffee, weak soup)

- **Concordances**

Example of particular words/phrases in contexts

- **Grammar**
- Example of particular patterns

4

WORD FREQUENCY

- provide useful information concerns the frequency of alternative forms, including near- synonyms.
- *wristwatch* as one word, with a hyphen, or as two words
- occur 74, 16 and 12 times respectively (general)
- 56, 13 and 9 occurrences respectively (text, i.e.Written text)
- roughly 12:3:2 (different forms)

5

For 'catch', the frequencies are in the following:

SECTION (CLICK FOR SUB-SECTIONS) (SEE ALL SECTIONS AT ONCE)	FREQ	SIZE (M)	PER MIL	CLICK FOR CONTEXT (SEE ALL)
SPOKEN	5,232	116.7	44.81	
FICTION	13,093	111.8	117.06	
MAGAZINE	8,352	117.4	71.17	
NEWSPAPER	6,628	113.0	58.66	
ACADEMIC	3,613	111.4	32.43	
1990-1994	6,380	104.0	61.35	
1995-1999	6,822	103.4	65.95	
2000-2004	6,894	102.9	66.97	
2005-2009	6,603	102.0	64.71	
2010-2104	6,572	102.9	63.86	
2015-2017	3,647	62.3	58.53	
TOTAL	36,918			SEE ALL TOKENS

6

COLLOCATIONS

- Corpora are very useful tools for finding the words that often occur together.
- First, using corpora for finding collocations helps in combining words in a way they are conventionally used.
- Second, they enable you to use language that is idiomatic and offer you a chance to extend your vocabulary.

7

- The noun collocations of the Word 'research' : research_nn*

		CONTEXT	FREQ	
1		CENTER	4320	
2		DEVELOPMENT	3236	
3		INSTITUTE	2684	
4		COUNCIL	1641	
5		GROUP	1628	
6		EDUCATION	1602	
7		TEAM	1569	
8		QUESTIONS	1512	
9		PROJECT	1426	
10		QUESTION	1278	
11		FIRM	1220	
12		PRACTICE	1196	
13		FINDINGS	1175	
14		HEALTH	1154	
15		PROJECTS	1124	
16		DIRECTOR	1113	
17		PROGRAM	1109	
18		JOURNAL	1103	
19		CANCER	1078	
20		STUDIES	1056	
21		POLICY	1027	
22		STUDY	967	

8

- The verb collocations of the Word 'research'

		CONTEXT	FREQ	
1		DO	1480	
2		DOING	1153	
3		IS	1129	
4		CONDUCT	632	
5		CONDUCTING	605	
6		DID	522	
7		CONDUCTED	427	
8		DONE	398	
9		HEARING	388	
10		SUPPORT	335	
11		HAVE	319	
12		BASED	312	
13		WAS	308	
14		HAS	272	
15		BEEN	263	
16		S	259	
17		USED	254	
18		SAYS	250	
19		LEARNING	223	
20		ARE	183	
21		DOES	177	
22		FUND	168	

9

What do you think might be the top object nouns that collocate with the word *'boost'*?

Write 5 guess.

10

	ECONOMY	266		77620	0.34	5.39
	SALES	248		46553	0.53	6.03
	PRODUCTION	158		54493	0.29	5.15
	CONFIDENCE	156		27852	0.56	6.10
	PERFORMANCE	120		77341	0.16	4.25

Could you put them into three categories?

11

- **'money-related nouns'** as in 'to boost profits', 'to boost sales', 'to boost funds', etc.
- **'other business-related nouns'** as in 'to boost productivity', 'to boost performance', 'to boost circulation', 'to boost demand', 'to boost efficiency', etc.
- **'Abstract feelings/atmosphere'** as in 'to boost one's confidence', 'to boost the morale', 'to boost one's spirits', etc

12

Guess the word by examining the collocates of a word below

1		SYSTEM	2186
2		STATUS	1002
3		ACTION	988
4		SERVICES	979
5		ISSUES	820
6		DEFENSE	818
7		FEES	784
8		EXPERTS	714
9		RIGHTS	697
10		COUNSEL	657
11		BATTLE	632
12		ANALYST	566
13		PROFESSION	511
14		IMMIGRANTS	500
15		AUTHORITY	467

13

«LEGAL»

14

What do you think might be the top prepositions that collocate with the verb '*marry*'?

15

1		IN	283
2		FOR	172
3		OF	122
4		AT	76
5		INTO	74
6		WITH	71
7		TO	58
8		ON	56
9		AFTER	48
10		OUTSIDE	46

16

1	2017	SPOK	NPR: Wait Wait	A B C	as Ms. Markle will be the second divorcee - the second American divorcee - to **marry into** the British royal family after, famously, Wallis Simpson. She became
2	2017	MAG	Daily Beast	A B C	, indeed, ISIS runs a marriage bureau specifically for that purpose. Women who **marry into** ISIS are indoctrinated **into** believing in the spiritual benefits of their
3	2017	NEWS	New York Times	A B C	isbred rednecks. # " The extended Markle family is possibly the most unusual to **marry into** the House of Windsor so far, " the paper said on its website
4	2016	FIC	BkFauxPas	A B C	was our childhood home. We both grew up there. Hope just happened to **marry into** money and so now enjoys Moon Key as a fulltime resident. # I
5	2016	FIC	BkBadBlood	A B C	did! You hid something important from him about the family he's going to **marry into**. By not telling him, that's the same as hiding it!
6	2016	NEWS	Chicago Sun-Times	A B C	a kid. I wasn't born with a silver spoon. I didn't **marry into** wealth or anything. " # " Consider this retort from Munger to Sneed
7	2015	MAG	USAToday	A B C	more about Islam, and ultimately to talk her **into** leaving home and family to **marry into** the movement. They warned her against going to her local mosque ar
8	2015	ACAD	MiddleEastQ	A B C	" This should be the treatment meted out to young people from our religion who **marry into** families of other faiths. " 10 The mother also said that she " killed
9	2014	ACAD	GeorgiaHistQ	A B C	" aboard the HMS Experiment, commanded by Commodore James Wallace, who would soon **marry into** Wright's family. Rather quickly, however, Germain beg
10	2013	FIC	WomensStudies	A B C	and share her infinite capacity to love with their spouses. would study medicine, **marry into** wealthy and influential families, settle abroad. The ceremonies wc
11	2013	FIC	NewEnglandRev	A B C	, quite believably, as eccentric, Delaware old money. At least enough to **marry into** it with Kaye. Chameleon came easy to him. The long winter on
12	2013	MAG	NaturalHist	A B C	became a merchant for the Hudson's Bay Company. The company encouraged employees to **marry into** the families of Indian chiefs, and, accordingly, Robert
13	2012	SPOK	CBS_ThisMorning	A B C	on the balcony, getting married becomes the business of being married; when you **marry into** the royal family, that means business. The Duke and Duchess o
14	2012	FIC	BkThisKiss	A B C	it. " # Rebecca bit her tongue. She might not be about to **marry into** the Murphy family anymore, but she still didn't feel right saying anything
15	2012	FIC	BkLadyMaggiesSecret	A B C	soirees and Venetian breakfasts. His half brother had recently become the first man to **marry into** the present generation of Windham daughters, making it e
16	2012	FIC	FantasySciFi	A B C	picture on lockets next to their hearts in the hope that she might decide to **marry into** her nobility and select one of them. # The nation was fascinated with
17	2012	FIC	BkSamUnaware	A B C	didn't go to the airlock to see Alejandro leave the family forever, to **marry into** the Italian clan. He didn't trust himself to say good-bye to his
18	2012	MAG	HistoryToday	A B C	. When the directors of the West-Indische Compagnie told the Classis that Capitein wanted to **marry into** the African community (in his words, ' to guard mysel
19	2012	NEWS	OrangeCR	A B C	Mr. Attelberry again. " When Israelson married, he was the first Anglo to **marry into** a Mexican American family. More than a decade **into** the marriage - by
20	2011	SPOK	NBC_Dateline	A B C	's astounding, of course... (Voiceover)... for any middle class person to actually **marry into** the royal family. (Kate greeting peop. MURPHY: (Voiceover) But then
21	2011	MAG	Newsweek	A B C	, explains author Jerramy Fine, whose 2008 memoir recounts her own unsuccessful efforts to **marry into** the monarchy, " Harry is now their last chance. " This
22	2010	FIC	BkProofBySeduction	A B C	isn't the extent of your prediction. Unless, Ned, you plan to **marry into** the genus Loxodonta. " Ned blinked. " Loxo-wha? " " Comprised
23	2010	NEWS	Chicago	A B C	, aka Natasha (Barbara Mori, born in Montevideo) -- are about to **marry into** this clan for cash. After a first meeting in the rain, this
24	2010	ACAD	SportBehavior	A B C	" The responses included, "... as a roommate, " "... to **marry into** my family,..... as someone I would personally date, " and

17

1	2017	FIC	Fantasy & Science Fiction	A B C	in ropes woven from corn husks, dancing the dance for couples who planned to **marry**, **with** people cheering all around them. # Not Pa. What had hap
2	2016	SPOK	NPR: Hidden Brain	A B C	more or less maintained the marriage patterns of 1960 when people were more likely to **marry** those **with** different levels of education, income inequ
3	2016	FIC	Alive	A B C	how he would live his life. # However, he was not forced to **marry with** Abha. # After considering so many alliances, **with** his consent, his parents
4	2015	NEWS	WashPost	A B C	beliefs will probably inflame the debate over how to balance the rights of gays to **marry with** the ability of people of faith to freely exercise their religio
5	2014	FIC	BkMeanBusinessOn	A B C	Bettinger walked across the office. # " You really thought you were going to **marry** Traci **with** an i? " # The businessman cleared his throat. ' We
6	2014	NEWS	Austin	A B C	success in, " Alcocer said. " We plan to source Austin ingredients and **marry** them **with** our coastal aspirations. " The space will apparently undergo son
7	2014	ACAD	JPopularCulture	A B C	" WE LIVE in a less hysterical age? where people like Gene Pitney can **marry with** the blessing of his fans " (" Fab says, " 21).
8	2014	ACAD	JournalAmerican	A B C	the aristocracy, while her class receives nothing. Not only does the plebian Marguerite **marry** gentility **with** no benefit to her former proletariat class. h
9	2013	SPOK	Fox: On The Record: Susteren	A B C	that is a tremendous advantage in this particular situation. And you're able to **marry** that **with** the visuals that individuals -- spectators, if you will -- will
10	2013	FIC	SouthwestRev	A B C	This cautionary tale has been spreading among the community for years, and when you **marry** someone **with** security clearances now you and your fa
11	2013	MAG	GolfMag	A B C	installed 3-and 11-gram weights are included **with** your purchase. The hybrids are engineered to **marry** up **with** FG Tour M3 irons but can serve as long
12	2011	SPOK	CBS_Early	A B C	it. Is this some Scottish -- CHARLOTTE VOSEY: A few savory and sweet canapes that **marry** perfectly **with** the balmoral punch. ERICA HILL: I like the thir
13	2011	SPOK	NPR_TellMore	A B C	very interesting opportunity to see if we can take policy in a challenging time and **marry** it **with** politics in a way that's good for the country. And so
14	2011	FIC	BkTwelfthEnchantment	A B C	. She had two older sisters, and surely at least one of them would **marry with** the family's security in mind. Their practical unions would free Lucy to
15	2011	MAG	MotherEarth	A B C	flavor pairs include almond, mint, oranges, sharp cheeses or chocolate. Strawberries **marry** well **with** rhubarb in tarts, pies and even wine. Freeze impo
16	2011	ACAD	Writer	A B C	. If a writer has the technical skills I'm looking for, and they **marry** that **with** a fresh, honest way of looking at a person or a place
17	2011	ACAD	GeorgiaHistQ	A B C	where per force they may have to eat, sleep, swim and perhaps inter **marry with** such ignorant, rotten white puppies as Walter Winchell and the editor
18	2011	ACAD	SocialWork	A B C	, and respondents were nearly evenly split on whether they would allow their children to **marry** people **with** SMI (53.5 percent, n = 36, agreed; 46.5 per
19	2010	MAG	TownCountry	A B C	prefer them to remain anonymous, cite Gambrel's grasp of details and ability to **marry** aesthetics **with** functionality as reasons for his success. " Everyt
20	2010	NEWS	SanFranChron	A B C	and pumpkin seeds, all chopped into like-sized bites so the flavors are balanced and **marry with** the tart vinaigrette. # Antipasti includes nicely fried Fri
21	2009	FIC	BkDeepDown	A B C	rock -- their island, they'd called it -- he'd asked her to **marry** up **with** him, and Jessie had been born the very next year. The
22	2008	SPOK	Fox_Hannity	A B C	Texas law, it is illegal for a girl under the age of 16 to **marry** even **with** their parents consent. So aside from the charges of abuse, rather
23	2008	FIC	BkWidjma	A B C	" Are you kidding? Hell, no! " // " Ya gon na **marry** up **with** the girl? " // " Hell, no! " he repeated

18

- *By typing *organised, I can get the prefixes of the word 'organised' listed in order of frequency, e.g. 'reorganized', 'well-organized', 'disorganized', etc.*
- *By typing sleep*, I can get the suffixes of the word 'sleep', including its morphological inflections, e.g. 'sleeping', 'sleepy', 'sleeps', 'sleepless', etc.*

What therefore might the suffixes be when I type in *like*?

19

1		LIKE	1161124
2		LIKELY	110676
3		LIKED	34999
4		UNLIKE	29616
5		LIKES	21171
6		UNLIKELY	17001
7		ALIKE	9375
8		LIKELIHOOD	8703
9		LIKEWISE	8142
10		DISLIKE	2938
11		LIKENESS	1702
12		DISLIKED	1625
13		LIKERT	1237
14		LIKENED	1224
15		LIKE-MINDED	1079
16		CHILDLIKE	1068
17		LIKERT-TYPE	817
18		DISLIKES	806
19		LIKENS	665
20		BUSINESSLIKE	627

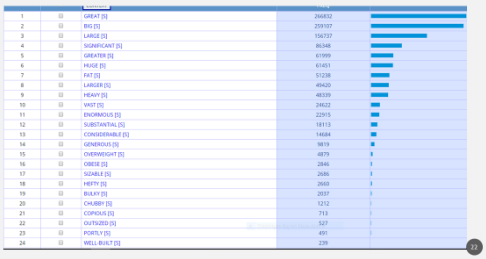
20

SYNONYM

- A corpus can be an effective tool for **looking up synonyms and words with a closely related meaning**
- Naturally this can be used for expanding your vocabulary,but also for obtaining knowledge on the nuances in meaning and connotations of words.
- [=word]

21

[=large] :



1	GREAT [S]	266832
2	BIG [S]	259107
3	LARGE [S]	156737
4	SIGNIFICANT [S]	86348
5	GREATER [S]	61999
6	HUGE [S]	61451
7	FAT [S]	51238
8	LARGER [S]	49420
9	HEAVY [S]	48339
10	VAST [S]	24622
11	ENORMOUS [S]	22915
12	SUBSTANTIAL [S]	18113
13	CONSIDERABLE [S]	14684
14	GENEROUS [S]	9819
15	OVERWEIGHT [S]	4879
16	OBESE [S]	2846
17	SIZABLE [S]	2686
18	HEFTY [S]	2660
19	BULKY [S]	2037
20	CHUBBY [S]	1212
21	COPIOUS [S]	713
22	OUTSIZED [S]	527
23	PORTLY [S]	491
24	WELL-BUILT [S]	239

22

Find the Word whose synonyms are shown in the followings:

☐	PECULIAR [S]
☐	COVERT [S]
☐	SHADOWY [S]
☐	PUZZLING [S]
☐	SECRETIVE [S]
☐	ENIGMATIC [S]
☐	INEXPLICABLE [S]
☐	UNEXPLAINED [S]
☐	UNSOLVED [S]
☐	CRYPTIC [S]
☐	BAFFLING [S]

23

«MYSTERIOUS»

[=mysterious]

24

SYNTATIC AND SEMANTIC PATTERNS

«Translators earn far and away the least.»

Far and away?

25



SPOK	NPR: How I Built This	A	B	C
FIC	BkHomeNightfall	A	B	C
MAG	Mashable	A	B	C
MAG	Bleacher Report	A	B	C
MAG	Ars Technica	A	B	C
MAG	Vanity Fair	A	B	C
MAG	TechCrunch	A	B	C
MAG	Bleacher Report	A	B	C
MAG	Ars Technica	A	B	C
MAG	A.V. Club	A	B	C
MAG	Engadget	A	B	C
MAG	Engadget	A	B	C
NEWS	Washington Times	A	B	C
NEWS	Chicago Sun-Times	A	B	C
NEWS	New York Post	A	B	C
SPOK	Fox: On The Record: Susteren	A	B	C
SPOK	Fox: On The Record: Susteren	A	B	C
SPOK	Fox: On The Record: Susteren	A	B	C
FIC	BkInWilderness	A	B	C
FIC	St. Anthony Messenger	A	B	C
FIC	Fantasy & Science Fiction	A	B	C
MAG	Sports Illustrated	A	B	C
MAG	The Verge	A	B	C
MAG	Gizmodo	A	B	C

26

- 73 occurrences of *far and away*, and that the majority preceded superlatives
- *Far and away* was almost always used to intensify adjectives and adverbs with positive connotations
- Having a positive semantic prosody,

27

GRAMMAR

- For example, you are searching for the differences between 'have to' and 'must' and try to figure out which situations those modal verbs are used.
- You search for 'have to' and look it up the concordance lines

28

Have to

- By providing this credit, states ensure that residents will not *have to* pay a higher tax amount to their resident state when they work across state…
- … income tax than April solely because he earns income interstate. Specifically, April will *have to* pay a 1.25% tax only once, to state A.
- If a generate-and-test approach *has to* be avoided a number of different actions *have to* be implemented by a human, and a more creative process is called in.
- Well, no breaking the law. I think the foundation of any sustainable company *has to* be honest numbers and compliance with the law.

29

Must

- Moore, in order to avoid the "trap" of moral skepticism, we *must* abandon the idea that casual determinism is incompatible with legitimate attributions of culpability and accept…
- As Stephen Morse and others have pointed out, the system of criminal law *must* necessarily presuppose a "compatibilist" view with regard to free action.
- So, it has seemed logical to many that damages *must* be less that the free value of the easement area.
- Faithfulness to the first principle implies that the hedonic model *must* have a certain characteristics.

30

Have to:

Must:

31

CONCORDANCES

Example of particular words/phrases in contexts

32

Examine the concordance lines given below. Identify the use of underlined phrasal verbs and infer their meaning from the sentences.

We are in an interracial relationship. We've worried about our children having to ***grow up*** in a world where there's hate.

She had hoped he would see them ***grow up***, get married, and have kids of their own.

Susan was a nice girl, and he was sure they would ***get on*** well enough.

She's a wonderful parent and we ***get on*** well as friends, we just weren't good at living together in the end

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- I think she is going to ***take after*** Wendell's side of family.
- I've been most curious about where you obtained such stellar good looks. Do you ***take after*** your mother or your father?

- When we see Ms. Heinz Kerry ***tell off*** a reporter, some people see that as a negative.
- … is the one where the kid ***tell of*** their parents. Why do you think that scene gets such amazing laughs?

34

Analyze the concordance lines and see how idioms are contextualized and used.

With hick, I will ***break a leg*** or something.

I won't say ***break a leg***, sweetheart, because that's the last thing we need. But good luck!

We would like to invite you to spend the night in Valleverde and ***break bread*** with us.

Shall we ***break bread***? Something simple, a pasta Bolognese, perhaps.

35

Lying to him ***break his heart***.

He was a total sweetie and I didn't want to ***break his heart,*** but I knew I had to end things.

I'd know with certainty that my hotel bill wasn't going to ***break the bank***.

It doesn't require expensive shoes No need to ***break the bank*** on sneaks.

To ***break the ice***, blow the candle out.

They got off to a bad start, but Michael was determined to ***break the ice*** that Billie had formed around her heart after having it broken by a cheating ex-husband.

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Panic give her the strength to ***break free***.

He had helped her ***break free*** of the past. With him, she was learning to move forward.

It is difficult to ***break new ground*** in this field.

But the company is not neglecting its core franchise. It aims to ***break new ground*** in HIV treatment through experimental compounds in its pipeline.

37

Analyze the concordance lines, and take attention to meaning and level of sincerity of the apology.

- We apology for the delay, which has been cause by traffic jam.

- I am sorry but you have to leave.

- I am sorry, the table is reserved.

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- Mr. Ahmed: go and get me the papers, Matthew.

Matthew: I am sorry, are you talking to me?

- Manager: We regret the delay, naturally.

Lucy: Is that all you have to say?

- George: Sorry, you failed your exam

Barbra: You should be too.

39

- Ed: Excuse me. I think that is my seat.

Ashley: I am sorry, but I don't see a reserved sign.

- I am sorry to hear about your accident.

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ACTIVITY 9

41

Try to spot the error and correct the mistakes by using a corpus tool.

Jerry was recently informed of an upcoming test in statistics, which is a required portion of his Ph.D. curriculum although hearing about the upcoming test, Jerry has acted passionate and uninterested in social activities. This behavior is an aberration for him, he is normally quite gregarious and ebullient. All his friends concur that his recent behavior has some correlation with the exam. Everybody has tried to evoke some of his normal despair, but to no avail. His behavior is very disconcerting. They seem that efforts to bring out his usual exuberance only exacerbate his malaise. I believe the only antidote to Jerrys uncharacteristic behavior to be unmitigated success on his statistics exam.

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BENEFITS OF CORPORA FOR LANGUAGE TEACHING

- More accurate description of a language than textbooks/institutions
- Exposure to contextualized, meaningful langauge in real usages
- Exposure of specific registers/genres of language
- Reference tool for independent and autonomous investigation and learning
- Exposure to non-textbook language patterns
- Access to much larger language sample than classes can normally provide
- Can answer questions about everyday usage (e.g. Do people really say/use this? Which constructions are common? Which vocabulary is frequent/rare? Is this word/feature typical in speech/writing?)

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CORPUS LINGUISTICS IN LANGUAGE PEDAGOGY

- Primary data for developing dictionaries and grammars
- Informing textbooks and other teaching materials
- Preparing materials for classes (e.g. as a source of examples)
- Data-driven learning in the classroom
- Studying learner language
- Developing new theories (e.g. 'English as a Lingua Franca')

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THANKS FOR LISTENING!

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Appendix D (Corpus Notes)

1. **TOT:** how many times the word is mentioned: raw frequency
   - Click on the word appeared in the concordance lines and see the results.

2. "What kinds of data you are searching for" is the key question.
   - Which words do most frequently occur before the word 'thing'?

* thing	: one thing, the thing
*thing	: something, nothing
*licious	: delicious, malicious

3. Five different types:
   - Spoken
   - Fiction
   - Magazine
   - Newspaper
   - Academic

4. Chart display shows the frequencies or the normalized frequency (per mil) across different text types. You can search in the section parts by clicking on 'newspaper' or 'academic' to find out the most frequent one in the selected section.

5. Results of the search 'say' only shows the form of 'say'. However, there are other forms like 'says' and 'said'. To extend your search: search

   [say]

6. For synonyms:

   [=say]

7. For direct and indirect speech:

Said ,	: direct speech
Said that	: indirect speech

   Note: While using punctuation in search, always put space between word and the punctuation mark.

8. Part of speech: click POS list and select one of them (verb, noun, adjectives, adverb etc.)
   For example: for 'fast' as verb: click verb and you will see [v*];

Fast as verb	: [fast] [v*]
Google as verb	: [google] [v*]

   Note: When you search [fast] [v], you will find sentences with 'fast' as verb.*
   When you search [fast].[v], you will find all instances of 'fast' followed by*

a verb.

9. For collocations:
   a. Structure/Syntax

   Similar + preposition: similar [i*]

Words:	Similar in	
Collocates:	[nn*]	0 – 2
Results:	size, appearance, nature, style etc.	

   b. Pragmatics/Semantics prosody:

Words:	[cause]	
Collocates:	[nn*]	4 – 4
Results:	problem, death, damage etc.	

   c. Sociolinguistics/Discourse analysis:

Words:	[teenager]	
Collocates:	[j*]	1 – 0

Note: 1 presents the possible adjectives appeared before the word
0 represents the possible adjectives after the word.

Appendix E (Students Corrections utilizing COCA)

Dreams, goals or aims are what drives us to get up from our beds every day and face the life that we want to ~~**life**~~ in.
Dreams, goals or aims are what drives us to get up from our beds every day and face the life that we want to **live** in. (Word form - Writing 4)

Students 32

If you spend ~~**in**~~ bad purposes, you waste it.
If you spend **on** bad purposes, you waste it. (Preposition – Writing 4).

Students 16

If one person turns into a greedy man ~~**one time**~~, there is almost no chance to….
If one person turns into a greedy man **once**, there is almost no chance to…. (Adverb – Writing 3)

Students 47

His wife ~~**killed**~~.
His wife **died**. (Verb – Writing 4)

Students 11

With his ambition and desire to hold on to life, he ~~**leaped**~~.
With his ambition and desire to hold on to life, he **moved on**. (Verb – Writing 4)

Students 59

All of this path are our exit ~~**but**~~ maybe none of them is our exit.
All of this path are our exit **or** maybe none of them is our exit. (Coordinators – Writing 4)

Students 37

If we want a ~~**rich**~~ life, we can't speak.
If we want a **wealthy** life, we can't speak. (Adjective – Writing 4)

Students 22

This activities **~~contribute to~~** us to improve ourselves.

This activities **encourage** us to improve ourselves. (Verb – Writing 3)

Students 41

Campus life must be attractive to students in many ways **~~because of~~** activities, entertainment, etc.

Campus life must be attractive to students in many ways **in terms of** activities, entertainment, etc. (Writing 3)

Students 19

Don't be afraid of **~~be~~** ambitious about your goals.

Don't be afraid of **being** ambitious about your goals. (Infinitive-gerund – Writing 4)

Students 43

People who are **~~ambitions~~** generally focus on achieving their goals.

People who are **ambitious** generally focus on achieving their goals. (Word form – Writing 4)

Student 10

They **~~were not believing~~** that they could achieve something.

They **did not believe** that they could achieve something. (Tense – Writing 4)

Student 46

Ambition plays **~~a~~** role in everything.

Ambition plays **a crucial** role in everything. (Adjective – Writing 4)

Student 9

People should believe in **~~yourselves~~**.

People should believe in **themselves**. (Agreement – Writing 4)

Student 54

There would not be request **~~to~~** achievements without ambition.

There would not be request **for** achievements without ambition. (Preposition – Writing 4)

Student 7

If our friends use some drugs, we can dissuade.

If our friend use some drugs, we can dissuade **him/her**. (Adverb – Writing 3)

Student 38

If there no ambition in the world, we cannot reach our goals.

If there **is** no ambition in the world, we cannot reach our goals. (Sentence Structure – Writing 4)

Student 52

~~**Untrained**~~ person might make a lot of mistakes.

Uneducated person might make a lot of mistakes. (Adjective – Writing 3)

Student 34

We have to improve ~~**themselves**~~.

We have to improve **ourselves**. (Agreement – Writing 3)

Student 33

We don't ~~**see**~~ anyone except us.

We don't **care** anyone except us. (Verb, Writing 3)

Student 45

~~**Because to**~~ succeed, you need to work hard.

In order to succeed, you need to work hard. (Coordinators – Writing 4)

Student 4

Passive ~~**education**~~ cannot be a way to reach success.

Passive **learning** cannot be a way to reach success. (Noun – Writing 3)

Student 24

POVERTY AND RICHNESS, FOR WHO?

Everyone wants to be rich because working and studying all time is boring su
, but there is a ~~real point~~ fact of life like poverty. Poverty isn't a fate. People generally believe
some day they will be rich, or will be better situation from now. However, poverty sometimes
contributes to people something. Even if it's painful, we need it unfortunetly.

All of us dream things that we want to live, and to have. If we want them,
something must be paid with effort. Nothing comes ~~to~~ at our wider feet easily.
Poverty limits possibilities, and then makes us think. When this process, we
should move, and never give up our desires. For example, some college students in
university work as a waiter, sales ~~man~~ clerk or as trainee at the company or shops to
gain experience or earn money of exe improve their skills in different ways.
Of course main purpose is making some money, but they can't live lack of different things
~~they need~~ need.

Nothing occurs easily and can be won all of a sudden. People live with
pain, tormeant, tussle and bad experience because of poverty. This doesn't last forever
If people get more to change their life from head (top) to toe (foot) mentally and ~~physically~~ (physically)
If we have desire to live, we must do something to obtain somehow. It doesn't mean
robbing a bank, stealing precious things like jewellery or killing someone for money.
For changing our position or reaching desires, sacrifice ourselves interest a little bit or main
more how we go beyond dreams. Whether or not we like spending time to live a good
life ~~is~~ is necessary.

Rich people who came from poverty are more lucky than other rich or
wealthy one. Because one living in the two sides of life can know how miracle life is, and
what worths should be known exactly. From poverty to wealthy is always better than
richborn on both. Experiences can't be bought with money, so that it is an privilege exception for those
people. Money is a tool for living, not our ~~commander~~ life purpose. Besides, people who don't must sacrifice
themselves to gain something like money or other precious stuff can't understand how
big responsibility ~~is~~ to exist in life. It is not all about money.

As a Consequence, everything is up to us. Living poverty life, ~~middle class~~ mid life or wealthy
life. Life is short, so we have to live ~~what~~ what we want but don't by crossing the line.
Poverty isn't a life choice nobody can choose their life, but can change somehow. Moreover, that's
not impossible. We mention that poverty can be anything that is lacking in life money, love, experience
etc., and that richness can be anything like glory, money and necessary to be made etc.
life is worth living.

The Special One

The meaning of friend ~~is who is the one~~ is that always being there for you. No matter what happen and no matter who you are, he/she always stays with you.

Not every one can be a friend because friendship has a special meaning. There are characteristic features of it. And it changes to someone to another. However, there are constant qualities of friendship. For example, you want to be friend with someone, for choose one who is helpful, honest, and sincere. Who doesn't? If there is a connection between you and someone, then here you are! You build a friendship. Friends have a good time together. They keep secrets and never tell any one. Friendship must be built on honesty. Otherwise it doesn't work and this is not a friendship anymore. Friends must support each other. They must back up in bad times. They should be an adviser or just listener when you need them. Sometimes we cannot talk with our families about our problems and, we well and want to talk with our friends. We know that he or she doesn't refuse us. And that is the difference from another people. This is unconditional. You do this because you want to do this because she/he doesn't just an acquaintance. We have lots of people around us. We share class, cafeteria and bus with them. But none of them doesn't mean anything to us. We share ideas and feelings just with our friends and explore the new things together. which really mean something to us.

Imprisoned in Our Head

Every single child enters a school with curiosity, questions and different ideas. But, can we say that all these schools are prepared to support the ideas or inflame the creativity? I believe that once children walk to a classroom, they are becoming a prisoner in their head with their ideas and their creativity. Neither our educational system nor our tests is/are good enough for children.

We are still using an educational system that belongs to 19th century. We're two centuries behind. In this system, being an artist, being original, being creative is not important. Only things that worth the attention is math, science, history and Language. Becoming an engineer, doctor or a architect is what people care about since in their mind they can only earn money if they choose these jobs. An artist, musician or other artistic jobs can't make money. What if a child has a talent in music or drawing? Would it be right to force them to pursue a different career? Lets say that they followed these valuable careers, could they be happy? Let me answer for you, no! They won't love what they do, they will feel like a prisoner in their own life.

In schools, students forced to take same test. However, these test only evaluate the information. They are one sided and are not focused on measure students' creativity or their artistic talent. We are making them leave some way, think some way and feel some way. Weren't all students unique? Weren't they only one and different from each other? Teachers behave like the student who gets the higher grade is the smartest. But the truth is schools does not accept needs support students who are different.

To sum up, education system is not good for the next generations that can be creative, original and unique. Furthermore, our test does not/is not good enough to identify these students that can be great leaders of the next generation.

What is the ambition? Ambition is a power for living. vita It is a aid, a way and a chase. What is the important thing for the people? People think their value, desire and expectation. They behave according to this value, desire and expectation.

All people have different conditions. Someone is rich, someone is poor or someone is happy or unhappy.. alone, successful, fat, homeless, tired, depressed, beatiful, we are all thinking about our life conditions. we have a lot of expectations. we always want to change something for example economical situation, education grade, phsical appereance. Ambition helps us for this.

Who will be our partner.
Ambition determines how we will live, what our business will be ~~what are our jobs~~, how many children we will have who our husband/wife is. How will be his/her economical situation or phsical appereance. will be

- How will we wornt to look. How will our phsical appereance. be Ambition determines it. If we want to be thin and presentable, we eat light thing and wear expensive, clean and compatible. Ambition decides our enviorement inspite of us. for exemple if we want a wealthy life, we can't speak only poor people. We must recognise rich people. we can't wear ordinary clothes. we can't live a poor street. affluent

Our conversation, friends, education grade give the other people the clue about our life. So we care this. Because the other people bring us respect.

All people want respect but the real question. Is: How important is this. What why are doing for respect or what can we give up. It varies from person to person. Somebody give up all her/his money or family somebody give up her/his time. We give up something or make something with ambition.

Ambition is so important for people life. Ambition shapes our character or prestige. The character and prestige is important for relationship. We can't live with out relationship we must live together the people. This relation creates culture and nation. character are we most live together or we must live with people culture Not alone powerless Association

We have to belong to a culture or nation. Because alone man is weak but togetherness. brings human power. So we can say that the ambition provides us culture and power we can't live without ambition.



GAZİLİ OLMAK AYRICALIKTIR…