THE FREQUENCY AND TYPE OF LEXICAL ERRORS IN THE ARGUMENTATIVE ESSAYS OF TURKISH EFL TEACHER CANDIDATES

Ph.D. Dissertation

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Eskişehir 2021

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PhD DISSERTATION

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Anadolu University

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February 2021

APPROVAL OF JURY AND THE INSTITUTION

ÖZET

TÜRK İNGİLİZCE ÖĞRETMENİ ADAYLARININ TARTIŞMACI KOMPOZİSYONLARINDAKİ KELİME HATALARININ SIKLIĞI VE TÜRLERİ

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Yabancı Diller Eğitimi Anabilim Dalı
İngilizce Öğretmenliği Programı
Anadolu Üniversitesi, Eğitim Bilimleri Enstitüsü, Şubat 2021

Danışman: Prof. Dr. Gül DURMUŞOĞLU KÖSE

Bu çalışmanın amacı Türk İngilizce Öğretmenliği Bölümü öğrencilerinin yazdıkları tartışmacı (argumentative) kompozisyonlardaki hataları belirlemek, kategorilere ayırmak ve kelime özellikleri, kelime hataları ile metinlerin toplam kalitesi arasındaki ilişkiyi incelemektir. Çalışma için gerekli olan veri Eskişehir Osmangazi Üniversitesi İngilizce Öğretmenliği Bölümü birinci ve üçüncü sınıf öğrencilerinin tartışmacı kompozisyon türündeki yazılı çalışmalardan toplanmıştır. Kelime hataları Schmitt ve Hemchua'nın (2006) taksonomisi kullanılarak belirlenmiş ve kategorilere ayrılmıştır. Kelime özellikleri, Lexical Frequency Profile, Wordsmith Tools Keywords programı ve Flesch-Kincaid Readibility testleri kullanılarak incelenmiştir. Toplanan veriler istatistiksel yöntemler kullanılarak incelenmiş ve aralarındaki ilişkiye bakılmıştır. Sonuçlara göre, Türk İngilizce Öğretmenliği Bölümü öğrencileri daha çok anlamsal hata yapmış ve bunların da büyük çoğunluğunun anlamsal kelime seçiminde olduğu gözlenmiştir. Kelime özellikleri ve hatalarının öğrencilerin kompozisyonlarındaki toplam kaliteye etkisi incelendiğinde ise kelime hatalarının yazma ve kelime bölümü notunu etkilediği gözlemlenmiş. Fakat, katılımcıların sınıfının kelime hata sayısı, toplam yazma notu, kelime notu, okunabilirlik derecesi ve sözcük yoğunluğu üzerinde istatistiksel olarak anlamlı bir etkisi gözlemlenmemiştir.

Anahtar Sözcükler: Kelime hataları, Tartışmacı kompozisyon, Sözcük özellikleri, Ana dili Türkçe olan İngilizce Öğretmenliği öğretmen adayları, Yabancı dilde yazma

ABSTRACT

THE FREQUENCY AND TYPE OF LEXICAL ERRORS IN THE ARGUMENTATIVE ESSAYS OF TURKISH EFL TEACHER CANDIDATES

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The aim of this study is to identify and categorize the lexical errors in the argumentative essays of Turkish students studying English Language Teaching, and then examine the relationship between lexical errors, lexical features and overall quality of writing. The data were collected from argumentative essays written by the first and third-year students of the English Language Teaching Department, Eskişehir Osmangazi University, Turkey. The participants' lexical errors were identified and categorized using Schmitt and Hemchua's (2006) taxonomy. The lexical features were examined using the Lexical Frequency Profile (LFP), the Wordsmith Tools Keywords program and the Flesch-Kincaid Readability tests. The participants' lexical errors, lexical features and overall writing scores were analyzed using statistical methods, and the relationship between them was examined. The results showed that the participants made more semantic errors than formal errors, and most of these errors were in the semantic word selection category. In terms of the effects of lexical features and errors on the overall quality of writings, lexical errors were proved to affect the total writing score and the vocabulary part score. However, the participants' year of study did not have a statistically significant effect on the number of lexical errors, total writing score, vocabulary part score, readability ease score or lexical density.

Keywords: Lexical errors, Argumentative essay, Lexical features, EFL writing, Turkish Preservice EFL teachers.

ACKNOWLEDGEMENTS

The completion of my dissertation would not have been possible without the support of great people, including my professors, colleagues, students, friends and family members.

First and foremost, I would like to express my greatest gratitude to my supervisor, Prof. Dr. Gül DURMUŞOĞLU KÖSE for her intellectual guidance, constructive feedback and continuous support. This dissertation would not have been possible without her.

I also would like to offer my special thanks and gratitude to my thesis committee, Prof. Dr. İlknur KEÇİK, Prof. Dr. Gölge SEFEROĞLU, Prof. Dr. İlknur SAVAŞKAN, and Asst. Prof. Dr. Gonca SUBAŞI for their valuable support, feedback, and comments.

I owe special thanks to my colleagues Seda ÜNER, Bethany BROBERG, Serdar ÇAĞLAK, Betül CANIDAR, H. Mustafa DÖNMEZ, Özcan DOĞAN, Pınar Ö. KOÇAK, and Meral ÜNVER for their professional help, feedback, proofreading, and encouragement in completion of this work.

I'd like to thank to the students who did not hesitate to participate in this study and let me analyze their essays.

I am also deeply grateful to Dilek Altındaş, Şerife Yılmaz and all of my family members for their moral supports, without which I would not have successfully completed this dissertation.

I'd like to express my deepest gratitude to my parents Gülsüm and Adnan ARIKAN who always believe in me wholeheartedly and encourage me to pursue my dreams. This dissertation is dedicated to my mother.

Nadire ARIKAN

February 2021

22/02/2021

STATEMENT OF COMPLIANCE WITH ETHICAL PRINCIPLES AND RULES

I hereby truthfully declare that this thesis is an original work prepared by me; that I have behaved in accordance with the scientific ethical principles and rules throughout the stages of preparation, data collection, analysis and presentation of my work; that I have cited the sources of all the data and information that could be obtained within the scope of this study, and included these sources in the references section; and that this study has been scanned for plagiarism with "scientific plagiarism detection program" used by Anadolu University, and that "it does not have any plagiarism" whatsoever. I also declare that, if a case contrary to my declaration is detected in my work at any time, I hereby express my consent to all the ethical and legal consequences that are involved.

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LIST OF ABBREVIATIONS

EFL	: English as a Foreign Language
ELT	: English Language Teaching
ESL	: English as a Second Language
ESOGU	: Eskişehir Osmangazi University
ICLE	: International Corpus of Learner English
L1	: First Language
L2	: Second Language
LPF	: Lexical frequency profile
TL	: Target Language

1. INTRODUCTION

1.1 Introduction

To err is human and human beings learn something new by trying, making errors, and trying again. As making errors is taken granted in all stages of life, learning a new language cannot be thought free of errors. Language learners who are not afraid of making mistakes or who take risks to use new structures or vocabulary items may develop their language skills much more than those who are hesitant to do that. The errors students make while learning new subjects in language classes may not be welcome by some language teachers, and language learners may be expected not to use those undesired forms. However, for educational researchers, the errors made by language learners may be regarded as an invaluable resource to gain a deeper insight or understanding into the language learning process. That is the reason why some linguists specifically scrutinize language learners' errors and design taxonomies to categorize the errors so as to understand the underlying causes of the errors committed by the learners who cannot correct the deviated forms of language they used. Thus, error analysis may be seen as a way for researchers to grasp not only how language is learned but also how language acquisition occurs. Then, studying the errors made by language learners while mastering language skills and components like vocabulary has a crucial role in gaining insight into those errors.

In addition, vocabulary is an indispensable and critical part of written and oral productions and Llach (2011) stresses the significance of lexical accuracy component while assessing learners' written productions and determining the quality of those productions (p. 196). Hence, it is necessary to understand to what extent vocabulary and lexical errors in particular affect the quality of writing. Gaining deeper understanding into this may contribute to fostering the writing quality in second language (L2) learners' compositions as the lexical errors and lexical features are regarded as a sign of overall writing quality (Engber, 1995, p. 148; Llach, 2007, p. 3). Moreover, figuring out language learners' lexical errors and providing necessary training may contribute to the development of better lexical competence and as a result, production of high-quality writing (Llach, 2007, p. 15).

1.2. Background to the Study

Vocabulary is a crucial component that language learners need to improve to reach the desired language proficiency in the target language, and it is seen as a predictor of linguistic competence, one of the communicative competences. In addition, it is regarded as an essential aspect of both written and oral communication and included in both holistic and analytical rubrics to measure students' language proficiency levels. It is accepted as a prerequisite condition to develop language skills (Nation, 2006; Gass and Selinker, 2008; Roche and Harrington, 2013). It is well known that vocabulary knowledge impacts not only target language skills but also academic competence (Douglas, 2010; Yüksel, 2012). Thus, language learners need to improve their vocabulary so as to produce well-developed written and/or oral works and understand reading and listening texts, as well.

Despite its crucial role in the language teaching and learning process, vocabulary instruction had been neglected due to the negative effects of Audio-Lingual Method in which the focus was on grammatical patterns and Communicative Language Teaching which shifted focus from grammatical patterns to fluency and acquisition of functional language. Thus, a systematic and principled approach to vocabulary instruction was adopted only after the 1990s. (González-Fernández and Schmitt, 2017, pp. 281-282). Hence, it is still not definitely known how words are stored and processed in the mental lexicon as well as how they are related to each other (González-Fernández and Schmitt, 2017, p. 282).

Some vocabulary acquisition theories suggest that vocabulary can be acquired or improved by second or foreign language learners either in sequential stages (Jiang, 2000, p. 50) or through links, connections or associations in the lexicon (Meara, 1996, p. 49). According to the first approach developed by Jiang (2000), learners acquire new lexical items in three stages: acquisition of formal specifications, addition of syntactic and semantic elements to first language (L1) translation, and morphological semantic, and syntactic elements brought together within the lexical entry (p. 53). In the second approach; however, language learners are said to acquire target language words by building associations between the new words and the words already existing in their minds in addition to phonology and orthography (Meara, 1996, p. 49). Contrary to expectations, language learners use context to learn a new target vocabulary item instead of simply adopting it into existing L1 system, and then they can make use of semantic priming and develop word knowledge, being exposed to large, various contexts and

gaining experiences about the word (González-Fernández and Schmitt, 2017, p. 282). Furthermore, the frequency of new vocabulary items in language input has also a significant effect on how well language learners learn and retain new words as well as how fluent they become with the ones they already know (Nation and Wang Ming-Tzu, 1999, p. 375). In other words, the number of occurrences of new words affects vocabulary acquisition. As a result, the more frequently language learners encounter with the new target language words they are expected to learn, the more likely they are to retain those words.

Another issue to be mentioned at this point is the ways new words are learned. These ways are called incidental and intentional vocabulary learning. Incidental vocabulary learning occurs when language learners learn or acquire new vocabulary items as "by product" while being actively involved in the activities aimed at teaching four language skills, namely, reading, speaking, listening and writing, whereas intentional vocabulary learning involves "any activity aiming at committing lexical information to memory" (Hulstijn, 2001, p. 271). However, regardless of whether vocabulary learning is incidental or intentional, language learners are likely to remember the new vocabulary items as long as their attention or focus is on "a word's morphological, orthographic, prosodic, semantic and pragmatic features" as well as "intraword and interword relations". (Hulstijn, 2001, p. 284).

Language learners may not acquire all the vocabulary items at once. The rate or order to acquire new lexical items differs for the EFL learners with respect to word classes or particular words (Laufer, 1997, p. 148; Richards, Singleton, Long, 1999, p. 142). Laufer (1997) states that the most difficult part of speech is adverbs, whereas the easiest one is the nouns. It is also suggested that there is an inverse relationship between the learners' proficiency levels and the production of nouns, whereas there is a direct relationship between the proficiency level and production of verbs, adjectives and adverbs (Laufer, 1997, pp. 148-149; Llach, 2011, p. 6). Hence, while low level learners produce more nouns in their written productions, higher level learners tend to use more verbs, adjective and adverbs but fewer nouns.

The factors having a significant effect on learnability are listed as pronounceability, orthography, length, morphology, synformy, part of speech, and semantic features (Laufer, 1997; Richards, Singleton and Long, 1999). For example, if a word is difficult to pronounce or write, it may be difficult for a language learner to learn that word. The

semantic features of a word affecting word learnability are abstractness, specificity and register restriction, idiomaticity and multiple meaning and these factors make some words for the learners difficult to learn. For example, in Llach's (2011) study, it was observed that the participants made a number of lexical errors while using the word "*birthday*" which is considered to be a formally complex and long word (p. 7).

When the organization of the lexicon in learners' native and target languages are taken into account, three perspectives into this area in the research were summarized in Llach's (2011) study. The first suggests that the organization of native language lexicon is mainly semantic, whereas target language lexicon is organized according to phonological relations. The second perspective contends that the organization of both native and target language is through semantic associations. The proponents of the third perspective argue that in both native and target language lexicon organization, the access to the words is via semantic associations during production and via phonological or orthographic relationships during comprehension (p. 11). Taking these three perspectives into consideration, it can be suggested that similarity in the organization of and access to the lexicon in a target and native languages may lead to similarity in the nature of lexical errors made by language learners.

Lexical errors are greatly important in the second language acquisition since those errors can be easily observed and, therefore, they are useful so as to gain insight into second language vocabulary acquisition. The lexical errors learners make are seen as "evidence of the system of the language" (Corder, 1967, p. 167). Corder (1967) also highlights the importance of learners' errors not only for teachers and learners but also for researchers. Errors provide feedback for the teachers and students about what has or has not been accomplished as well as for the teachers about the language learning, acquisition and learners' strategies to learn a language.

In addition, lexical errors are accepted as the indicators of writing quality (Engber, 1995, p. 148). However, Llach (2007) investigated whether lexical errors played a role in predicting the writing quality and found out that lexical errors were not strong predictors of the writing quality but they played a very insignificant role as a writing quality assessing criterion (p. 15). Nevertheless, it should be kept in mind that lexical errors may lead to misunderstandings or annoyance, especially for native speakers (James, 1998, p. 144) as well as they may impede written communication (Engber, 1995, p. 149; Schmitt and Hemchua, 2006, p. 3). It can be said that lack of or insufficient vocabulary knowledge

may lead to problems in writing (Kırmızı and Aydın, 2019). Due to the aforementioned reasons, lexical errors have been the subject of interest and research.

Errors and analyzing those errors enable the researchers to find proof for a sophisticated approach to the language learning process where language learners take responsibility and are involved in the forming and revising hypotheses with respect to the target language rules. More specifically, language learners are taught rules implicitly and/or explicitly and then they try these new rules while producing the language to test their hypothesis and master new language items. For example, when they are taught the negative prefixes "un-, in-, il-, ir-" meaning "not", and instead of writing or saying "cheap, not expensive", they apply the rule and come up with the word "*unexpensive*". When this lexical error is corrected as "inexpensive", they learn the correct form. This process helps learners focus on the correct use of the target word, test their hypothesis about the new rule and learn the correct version if their hypothesis fails. Therefore, it is natural for language learners to make errors while learning the target language. Compiling language learners' errors and analyzing them provide language teachers and researchers with a valuable resource to gain insight into learners' language development. As shown in the example, error analysis has also proved to be a useful way to gather empirical data for developing a syllabus or design a course. To be able to collect this empirical data, learners' written productions can be used since the actual vocabulary knowledge of language learners can be observed in their written productions (Laufer and Nation's, 1995).

The Error Analysis has been used to identify ESL/EFL learners' errors in their writings. In most of these studies, the main focus has been on either all the errors committed in the essays or the syntactic errors made. The results of the studies yielded that the types of errors the ESL/EFL learners committed involved tense, verbs, word choice, spelling, prepositions, singular-plural, articles, subject-verb agreement, pronouns, adjectives, infinitives, adverbs, possessive case and so on, and it is important to note that the occurrences of these mistakes were not in the same order in the previous studies (Cha, 1990; Nelson and Chun, 2004; Shamsudin, and Mahady, 2010).

In the studies dealing with factors affecting writing performance, the complex nature of writing has been emphasized. Knowing the fact that several elements play a crucial role in producing a piece of writing, Park (2007) investigated the role of following twelve components; namely, "basic sentence types, subject and verb agreement, sentence

types in general, main verbs, noun agreement, conjunction, contents 1 (redundancy, logic, and style), contents 2 (meaning, word choice, and parallelism), usage, and organization (connectives)" (p. 5). Park's (2007) argued that even though vocabulary did not have a direct impact on the participants' writings, errors of meaning and word choice had an effect on their writing and these errors occurred persistently and prevalently despite the fact that other types of errors, such as conjunctions, parallelism or types of sentence decreased in number. That is an intriguing result and it is essential to investigate the errors related to vocabulary, and gain insight into their contribution to the overall writing quality.

In one of the previous studies on overall quality of writing, Llach (2011, p. 68) differentiates between qualitative and quantitative criteria to determine the quality of writing as listed below:

Qualitative criteria:	**Quantitative criteria**:
Communicative effectiveness	Word counts
Content	Number of independent units
Rhetorical organization	Mean word and utterance length
Vocabulary	Density of grammar and lexicon errors
Syntactic accuracy	Different measures of lexical richness
Mechanics	(lexical diversity, sophistication and originality)

When these criteria are considered, it can be suggested that lexical items and features (i.e., lexical diversity, sophistication, originality, density) play a significant part in evaluating learners' written productions. While spelling as a component of mechanics and vocabulary are involved in the qualitative criteria, the number of words, lexical errors, lexical richness, and length of production are regarded as quantitative criteria to determine the quality of writing.

1.3. Statement of Problem

In the studies carried out by Engber's (1995) and Llach (2005) with intermediate and advance level students, the relationship between lexical errors and quality of compositions graded holistically was proved to be significant, and it was stated that the higher the score was, the fewer the errors were. In another study by Llach (2007), the participants were beginners and the rubric for scoring the compositions was analytic. The result of the study was in agreement with Engber's (1995) and Llach's (2005) studies, but the correlation between the lexical errors and writing quality was slight. However, there

are some studies where the lexical errors had an insignificant effect on the quality of writing (Linnarud, 1986, as cited in Engber, 1995, p. 149; Llach 2011, Gönülal, 2012). In Gönülal's (2012) and Llach's (2011) studies, the participants were beginner level students; however, the rubric to mark the essays was analytic in one study and holistic in the other one. Both studies yielded no significant relation between lexical errors and writing scores. The results mentioned above are conflicting, which implies more research into this area is necessary.

In addition to the effect of lexical errors on the overall writing quality, there is a need to investigate the relationship between the lexical features and writing quality because there are two opposing views with regard to the effects of lexical features on the written productions of language learners. Some researchers contend that lexical richness affects the language learners' performance in writing assignments and academic achievements (Douglas, 2010). However, other researchers argue against the idea that these features have a significant effect on writing quality as the content and/or grammatical features played a more effective role in scoring (Lemmouh, 2008; Gregori-Signes and Clavel-Arroitia, 2015). Lavallée and McDonough (2015) and Wang (2014) also found no significant relationship between lexical features and essay scores. Tömen (2016) investigated the relationship between the first- and fourth-year ELT majors' writing scores and the lexical features, namely, vocabulary size, lexical diversity, and lexical density. In Tömen's (2016) study, lexical features were not proved to affect the writing scores directly. It would be beneficial to investigate this relationship further because of the limited number of such studies in Turkish EFL context, especially with the participants majoring in ELT Department.

In addition, Llach states that "vocabulary measures, and especially lexical errors, are important indicators of writing quality" (2011, p. 68). However, a review of the studies on the language learners' errors in Turkish EFL context suggests that most studies have analyzed the language learners' writings to investigate different aspects at different levels, such as syntactical and lexical errors (Alpsoy, 1998; Ander and Yıldırım, 2010; Gönülal, 2012; Erarslan and Hol, 2014; Atmaca, 2016; Kalay, 2017; Hasırcıoğlu, 2019). Gönülal (2012) also emphasized the need for further research into the effects of lexical errors on writing quality in L2 settings to explore what other factors related to lexical errors determine the effect of the frequency of lexical errors on writing quality, keeping the taxonomy same. Furthermore, the data collected to analyze such a relationship

between lexical errors and the quality of writing may provide necessary feedback for researchers, curriculum developers, teachers, instructors and learners of English language. Therefore, there is still a gap to form a wider picture to show the relationship between language learners' use of lexical features, the errors they commit, and the quality of their written productions, which makes it necessary to have an in-depth analysis of different aspects of lexical errors. Thus, it is necessary to analyze the types and frequencies of lexical errors in detail and investigate the relationship between the lexical features in Turkish EFL learners' writings and the overall quality of their writings. Since the existing studies mostly focus on lower-level learners, and there is a limited number of studies investigating the relationship between the overall writing quality and lexical features along with lexical errors in the written productions of EFL learners majoring in ELT, a study designed to investigate this relation may hopefully contribute to the English language teaching field, specifically to the vocabulary instruction and the improvement of EFL academic writing courses, and which in turn, writing performance of learners.

1.4. Aim and Significance of the Study

The error analysis has been used to identify and categorize language learners' errors and doing this, the problem areas in language learning and teaching process are detected by researchers to contribute to the English language teaching field. However, most studies conducted so far dealt with syntactic accuracy, which results in a need to investigate lexical errors in detail.

In the current study, the aim is to investigate the frequency and types of lexical errors committed by the EFL teacher candidates and the lexical features emerged in their written products. Moreover, the present study aims at scrutinizing the relationship between overall writing quality and those lexical errors as well as lexical features identified.

In this study, the argumentative essays written by the EFL teacher candidates studying at Eskişehir Osmangazi University, Turkey were scrutinized to detect, categorize and enumerate the lexical errors committed and lexical features used. The overall writing quality was also investigated in relation to those lexical errors and lexical features identified.

As the number of the studies conducted to analyze lexical errors made by Turkish EFL learners, Turkish ELT teacher candidates in particular, is limited, the results of the

current study are believed to contribute to the literature on the issues related to teaching and learning lexical items as well as to provide insight into problematic, difficult or challenging areas in vocabulary teaching and learning. In addition to this, it is important to shed some light on the issues related to overall quality of writing due to numerous components to be considered while scoring it. That is why it is of great importance to know to what extent lexical errors and lexical features contribute to the scores of the language learners' written productions. Consequently, some implications are also believed to arise from the results to build vocabulary and writing instruction or develop course materials to teach lexical items and writing accordingly.

1.5. Scope and Limitations of the Study

The present study was conducted in one of the ELT departments in a state university in Turkey and the participants were the first- and third-year ELT teacher candidates in the second half of the 2016-2017 academic year. Both groups had done Academic Writing courses provided in the ELT department, so they were familiar with the genre, argumentative essay, they were expected to write in the current study. The students from the first and third year were chosen because it was expected that the education the students had in their department would improve their level of English, so the third-year students would become more proficient than the first-year students. Therefore, the aim of this study was to compare the frequency and types of lexical errors made by the first year and the third-year students and investigate the effect of lexical features and lexical errors on the overall writing quality in the sample.

As some errors may overlap in some categories, which may act as a limitation of the study, the researcher worked with three English language instructors, one native and two non-native speakers of English with more than fifteen year-experience in state universities. The instructors were informed about the taxonomy with clear examples for each category defined were given. Then together with the researcher they checked whether the lexical errors were classified correctly in each category. This resulted in the elimination of overlapping errors.

2. LITERATURE REVIEW

2.1. Introduction

In this section, the definitions of lexical items and lexical errors are provided. This is followed by a brief introduction to the error analysis and taxonomies of lexical errors. Then, the studies carried out on the lexical errors are presented. Next part focuses on the lexical features. Afterwards, the factors affecting EFL/ESL writing are briefly discussed. Finally, the research questions of the current study are presented.

2.2. Lexical Items

A lexical item, also called, word or lexical unit, is hard to define, but the definition is necessary because finding lexical errors depends on understanding what a lexical item is and what knowing a lexical item (i.e., word) means (Llach, 2011, p. 72).

Lexical items can consist of one word or multiple words. Hence, phrasal verbs, adverbial phrases or idioms are also regarded as lexical items and these items have their own structures (James, 1998, p. 143). Lexical items can be defined as "the smallest semantic unit or meaning unit" (Llach, 2011, p. 71). We could therefore suggest that regardless of how many words they include, lexical items need to bear at least one meaning.

Knowing a lexical item or a word is not as simple as it may sound since a language learner has to acquire lots of lexical properties and features regarding the new word. Summarizing these properties and features, Laufer (1997) indicates that to know a word, a language learner needs to get familiarized with its spoken or written form, structure, syntactic pattern, meaning (referential, affective and pragmatic), lexical relations with other words as well as common collocations (p. 141). It is important to note that while learning new vocabulary items in a target language, language learners may not fully master all these features at once, so developing knowledge of a word should be considered as a continuum and learning words is not linear (Takač, 2008, p. 29). At some stages, learners may only recognize a lexical item while they may produce it at a later stage, which implies receptive and productive knowledge of vocabulary stages (Takač, 2008, p. 10). Nation (2013, as cited in González-Fernández and Schmitt, 2017, p. 283) indicates that to know a word, language learners build receptive and productive knowledge for

different dimensions regarding the form, meaning and use of vocabulary items as it can be seen in the Figure 2.1 below.

FORM	Spoken	[R]	What does the word sound like?
		[P]	How is the word pronounced?
	Written	[R]	What does the word look like?
		[P]	How is the word written and spelled?
	Word parts	[R]	What parts are recognizable in this word?
		[P]	What word parts are needed to express the meaning?
MEANING	Form and meaning	[R]	What meaning does this word form signal?
		[P]	What word form can be used to express this meaning?
	Concept and referents	[R]	What is included in the concept?
		[P]	What items can the concept refer to?
	Associations	[R]	What other words does this make us think of?
		[P]	What other words could we use instead of this one?
USE	Grammatical functions	[R]	In what patterns does the word occur?
		[P]	In what patterns must we use this word?
	Collocations	[R]	What words or types of words occur with this one?
		[P]	What words or types of words must we use with this one?
	Constraints on use	[R]	Where, when and how often would we expect to meet this word?
		[P]	Where, when, and how often can we use this word?

Note: [R] = receptive; [P] = productive.

Figure 2.1. *Nation's (2013) framework of the dimensions involved in knowing a word*

As can be understood from the aforementioned aspects or features, learning new words in a target language is neither easy nor simple. Some factors have an effect on word learnability and Laufer (1997) lists these factors as pronounceability, orthography, word length, morphology (deceptive transparency, inflexional and derivational complexities), synformy, part of speech, as well as semantic features of the word, including abstractness, specificity and register restriction, idiomacity, and multiple meaning. Knowing these factors, curriculum developers and language teachers may plan lessons, develop teaching materials and prepare classroom activities in a way that they can raise language learners' awareness about these factors and help them cope with the problems these learners may face while learning vocabulary. Paying no attention to these factors may result in lexical errors. For example, when pronunciation and orthography of a word are not congruent, learners may make errors in pronunciation or spelling (Laufer, 1997, p. 144). That's why, language learners may be confused and commit errors when they encounter with some words, such as "cough", "though", and "thought". Another example is the words looking or sounding alike, and these synforms like integrity/integration, quiet/quite, extend/extent, base/bias, imaginary/imaginative, affect/effect, repress/oppress, or

historic/historical (Laufer, 1997, pp. 146-147) may confuse language learners, which results in lexical errors. A further example inducing difficulty for language learners is polysemy (e.g., neck) or homonym (e.g., bank). When learners encounter one form with several meanings, they can make use of the meaning they already know even though it is meaningless for the given context. For example, when language learners encounter the word "since" in a sentence like "He did not come to class since he was ill.", they may interpret this word as "between then and now" instead of correct interpretation "because" (Laufer, 1997, p. 152). All in all, the factors listed by Laufer (1997) may confuse language learners and make them commit lexical errors.

2.3. Lexical Errors

Error is defined as "an instance of language that is unintentionally deviant and is not self-corrigible by its author" (James, 1998, p. 72). Similarly, lexical errors are defined as "deviations in the learner's production of the L2 norm with regard to the use in the production and reception of lexical items" (Llach, 2011, p. 71). Dulay, Burt and Krashen (1982) define errors as "flawed side of learner speech or writing" (p. 138), but point out the fact that making errors systematically can help learners to learn a language. Llach (2011) also raises other definitions of lexical error as "all errors that are not grammatically fit". Lexical errors are considered as "a superordinate term for classes of errors, such as word formation, collocation, form/semantic confusion and wrong word choice", and despite the controversies related to the definition or classification of lexical errors, there is an agreement that it is possible to explain, classify and generalize them (pp. 73-74).

Distinguishing between errors and mistakes, Corder (1967) suggests that errors are systematic and give information about a language learners' linguistic competence, providing evidence regarding the system of the language a language learner possess at a certain stage, whereas mistakes are non-systematic and result from performance errors like slip of tongue or pen. (p. 167). Corder also draws attention to the fact that it is really difficult to make a distinction between errors and mistakes while analyzing them; however, analyzing errors are crucial for teachers, learners and researchers to better understand underlying knowledge of a language (1967, p. 167). Unlike Corder (1967), Dulay et al (1982) prefer to use the word error when referring to "any deviation from a selected norm of a language performance, no matter what the characteristics or causes of the deviation might be" (p. 139).

James (1998) underlines the difficulty of error detection and Mahan (2013) states that the mismatch in context makes it possible to locate the relation between form and meaning, so it is of great importance to detect errors. Also, James (1998) states that errors emerge when the words and the context in which they are used lack agreement even if they do not violate any language rules (p. 19).

2.4. Error Analysis and Taxonomies of Lexical Errors

2.4.1. Error analysis

Error analysis is defined as a linguistic examination and analysis of L2 learners' errors (Corder, 1974). The error analysis has been conducted by the researchers so as to gain insight into the lexical errors and learn what errors the learners make and why and/or how they make them.

According to Corder (1967), errors signal the system of a language, regardless of being right or wrong, and they are systematic. By means of a systematic error analysis, language teachers can find out to what extent their goals in language teaching have been achieved. Besides, researchers determine the way in which a language is learned or acquired or what strategies or procedures employed while learning a language, and learners can test their hypothesis related to the nature of the language they are learning. Thus, it directs the focus from teaching to learning (pp. 166-167). As Corder (1967) emphasized, error analysis benefits researchers, teachers, and learners in many different ways, such as providing feedback related to language acquisition or/and learning procedure. It can be concluded that gaining insights into learners' errors, teachers and curriculum developers can design remedial courses where they provide efficient materials and activities to increase learners' awareness and see the correct form of the target language.

The three stages of error analysis methodology to be followed so as to analyze errors effectively after collecting the data from the L2 learners are: (1) identification of errors where researchers identify errors as idiosyncratic or unacceptable and put those errors into acceptable forms, (2) description of errors where errors are classified according to the linguistic level or how errors occur, and (3) explanation of errors where the system underlying the errors is explained. (Corder, 1981, pp. 21-25)

There are some limitations of error analysis, though and these limitations are listed as follows: only limited reflection of interlanguage, the bias of evaluation judgments, controversies regarding the definition of errors, overlapping in some categories, finding out the source of errors, avoidance of L2 forms, whether error type is really omission or non-acquisition, and, finally, issues of validity (Mahan, 2013, p. 45; McDowell, 2016, p. 17).

2.4.2. Taxonomies of lexical errors

The technique or method to collect data, such as essay writing or translation tasks, is highly important since the way the data collected determines the nature of the data and the language produced by the language learners. Therefore, researchers need to determine the type of information they need to focus on in advance because different taxonomies are used to scrutinize and reveal different aspects of lexical errors. In addition, collecting errors is not enough, and it is crucial to gather data revealing information about types of errors, as well (James, 1998, p. 104). That is why determining categories to detect and classify the errors emerged in learners' written or oral productions prior to data collection is evident.

Selinker (1972) states that language learners' errors result from five factors: (a) the transfer of rules or structures from L1 to L2, (b) the transfer of training, including rules, subsystems, and fossilized items, (c) the strategies employed by L2 learners while learning the target language, (d) the strategies applied by L2 learners while communicating with native speakers, and (e) overgeneralization.

On the other hand, Richards (1974) suggests a more extensive classification of causes possibly leading to learner's errors and these are interference, overgeneralization, performance errors, markers of transitional competence, strategies of communication and assimilation, as well as teacher-induced errors.

Dulay et al (1982) highlight the fact that detection of the errors for certain categories should be based on observation, not inference. They classified the errors into four categories as follows: linguistic category, surface strategy, comparative analysis and communicative effect. Linguistic category involves phonology, syntax and morphology, semantics and lexicon, and discourse (p. 146), whereas surface strategy deals with the items the learners omit, add, misinform, or misorder (p. 150). The third category is comparative taxonomy which enables the researchers to compare the L2 errors' structure

and other types of constructions (p. 163) and this classification results in two main categories, namely developmental and interlingual errors (p. 164). The last category is communicative effect taxonomy where the researcher classifies the errors into two categories; namely global and local errors. The errors leading to miscommunication are classified as global errors, whereas the ones not hindering communication were categorized as local errors (p. 191).

Llach (2011) underlines the difficulty in adapting the taxonomies for the data collected from learners with different L1 backgrounds or through different elicitation methods, and this may lead the researchers to developing taxonomy for their own data (p. 91). In addition, Mahan (2013) suggests that it might not be possible to label the sources of the learners' errors for sure all the time due to the overlapping issue and not knowing what the learners think while making errors (p. 42).

Gönülal (2012) states that finding proper lexical error taxonomy to identify and discuss the errors comprehensively and precisely may be difficult because of the variety of criteria used to classify them. Nevertheless, Llach (2011, pp. 76-87) made a list of eight main classification criteria to classify the errors:

1. Distinction between form-oriented and content-oriented lexical errors
2. Descriptive criterion (wrong lexical choice, omission, and wrong order)
3. Etiologic or psychological criterion (source of lexical error – mental processes underlying the lexical error, such as overgeneralization, semantic transfer and, confusion of related words)
4. Origin of influence criterion (interlingual, intralingual and teaching-induced errors)
5. Grammatical or linguistic criterion (linguistic level - phonology, orthography, morphology, and syntax)
6. Word class criterion
7. Product-/process-oriented taxonomies (psychological processes generating errors)
8. Miscellaneous

2.5. Some Studies on EFL/ESL learners' Lexical Errors

The studies on error analysis may focus on all the errors emerged in the data and the taxonomies were developed accordingly. The following studies specifically focus on lexical errors and those errors are analyzed using or designing specific taxonomies, such as James's (1998) or Schmitt and Hemchua's (2006).

2.5.1. Studies in EFL / ESL contexts

Dušková (1969) analyzed postgraduate ELF learners' lexical errors, and the types of errors emerged in the data were confusion of words with formal similarity, similar meaning and misuse of words caused by one or several equivalents between their native language, Czech and the target language, English, and distortions. Moreover, the study also revealed that the beginner level participants' errors were form-based while those of more advanced learners' were meaning-based.

Yang and Xu (2001) also analyzed Chinese ESL learners' errors and reported that the most frequent lexical errors emerged were inappropriate word selection, errors of transitivity/intransitivity and collocation. Their study was different in the way that they found out errors of transitivity/intransitivity and preposition errors were not among the most frequent errors.

However, in the study carried out by Schmitt and Hemchua (2006) the most frequent errors made by the third-year English Language majors in Thailand were near synonyms, preposition partners, suffix type and calque. Moreover, those ELT majors were observed to make more semantic errors than formal errors (p. 16).

In Chamimah's (2007) study, Indonesian language learners were observed to make mistakes in the distortion category most, followed by the formal misselection and misformation categories.

Al-Shormani and Al-Sohbani's (2012) study conducted to investigate the Arabic language learners' semantic errors. The number of semantic errors identified in lexical, collocation and lexico-grammatical error categories using a taxonomy based on James's (1998) was 1388. Omission of letters category was the most common error type while the misselection of prefix errors was the least common error type. The sources of errors reported in this study are mother tongue influence and insufficient knowledge of the target language like its semantic system.

In Mahan's (2013) study, the patterns of lexical errors made by Norwegian learners of English were uncovered, using the taxonomy of lexical errors to determine how and why the errors were repeated. To do this, the lexical errors were detected in the intermediate and advanced learners' texts and then labeled by their routes, effects, and influences. The results of the study showed that when compared to intermediate learners, advanced learners made fewer errors, had a different way of choosing words, and also used direct L1-influence and intralingual influence more.

Phuket and Othman (2015) investigated the sources and types of EFL learners' errors in their narrative essays. Forty narrative essays written by the second- and third-year Thai undergraduate students majoring in English language were collected and analyzed. It was found out that translated words from L1, word choice and preposition errors were the most frequent types of errors.

2.5.2. Studies in Turkish EFL context

Gök (1996) analyzed developmental and interference errors in Turkish EFL learners and the first three categories of developmental errors were preposition errors, spelling errors and word choice errors while two of the most problematic interference errors were word choice and preposition errors. The study also showed that the interference errors made by the Turkish EFL learners outnumbered the developmental errors. It is also noteworthy to mention that learners used the words looked up in bilingual dictionaries, and they did not pay attention to the context, which results in interference errors.

Kırkgöz (2010) investigated the sources of errors, identifying and classifying the written errors of Turkish adult learners of English at the beginner level. The study revealed that the students made more interlingual errors than the intralingual ones, which indicated L1 interference. In Kırkgöz's (2010) study, prepositional interference was analyzed and three types of interference were mentioned. In this category, the participants added a wrong preposition (e.g., going *to* home; is *on* downstairs; watching *to* TV); omitted a preposition (e.g., *work house; interested music; talking a girl*) or misused a preposition (e.g., flying *in* <over>, the city; sitting *on* <at> her desk; looking *from* <through> the window). For lexical interference, she mentioned L1 interference and word-for-word translation of idioms as can be seen in the following examples: *celebrated* <congratulated > her, *close* <turn off > the radio; *open* <turn on > the tap. (p. 4355).

Gönülal (2012) analyzed the lexical errors emerged and reported that the most problematic error category was formal misselection of words and the categories of near synonym, borrowing, calque, and vowel-based type errors followed that category. Different from Schmitt and Hemchua's (2006) study in which prepositional errors type is a component of the lexical error taxonomy, Gönülal (2012) analyzed the beginner level Turkish EFL learners' prepositional errors under syntactical errors category and prepositional errors were observed to be the most frequent errors among 15 syntactical error types. He argued that most of the errors detected were intralingual errors and resulted from the fact that the learners failed to apply the rules of English language and/or master the English language, or they were just careless. The borrowing and calque types of errors; however, were reported to result from negative transfer. The learners made those errors because of the Turkish language influence. Furthermore, this study also analyzed the effect of lexical errors on the writing scores of the compositions and found no significant correlation between them.

In another study in Turkish setting, Erkaya (2012) investigated the errors in Turkish EFL students' writings, focusing on lexicon, grammar and syntax and found that lexicon errors were so problematic that they made the sentences unintelligible, which implies that lexical errors emerged in this study hindered the communication.

In Elkılıç's (2012) study, the interference errors in the essays of Turkish intermediate and upper-intermediate learners studying English at a university were analyzed to figure out whether these errors were interlingual or not. The results indicated that the most frequent interference error was "word for word translation", and the participants at intermediate level were observed to make more errors, which suggests that the higher the level of the learners, the lower the number of the errors they commit (p. 663).

Mutlu (2013) also analyzed the types of lexical errors made by Turkish speaking university students in the opinion essays using the lexical error taxonomy developed by Schmitt and Hemchua (2006). The study showed that the most frequent formal error type was calque and the most frequent semantic errors were near synonyms and preposition partners (pp. 198-199).

Duran (2017) conducted a study to investigate the association between the lexical errors and language proficiency level of the Turkish university students studying English at intermediate, upper-intermediate and advance levels. The findings of the study yielded

that the most frequent lexical errors were similarity (a semantic error category similar to "near synonyms" in Schmitt and Hemchua's (2006) lexical error taxonomy), calques and collocation errors (p. 68). In addition, coinage and borrowing errors types were among the errors emerged in this study. The study also revealed that the number of calque errors committed by advanced and intermediate level students was similar, which may suggest that proficiency level may not have any effect or may have slight effect on the number of learners' lexical errors. The examples of calque in this study are "drink smoke" and "little wrong understand, big arguing will come" from intermediate level students and upper-intermediate level students data sets, respectively (Duran, 2017, p. 66).

2.6. Lexical Features

Lexical frequency profile, lexical density, lexical diversity and readability ease are the features revealing information related to learners' vocabulary knowledge.

The Lexical Frequency Profile developed by Laufer and Nation is a tool to measure learners' lexical performance analyzing oral or written productions and this analysis yields the frequency of the words used by the learners. That makes the Lexical Frequency Profile a useful tool to find out frequent and infrequent words. Laufer and Nation (1995) claimed that the Lexical Frequency Profile was "a reliable and valid measure of lexical use in writing" and "discriminates between the different proficiency levels" (p. 319).

Lexical density refers to the proportion of content words like verbs, nouns, adjectives, and adverbs to the total number of words. In addition, when a text is analyzed in terms of lexical density, how much information a text can offer is revealed by means of the proportion of the content or function words in that text. (Johansson, 2008, p. 63). Johansson's (2008) study indicated that lexical density measure seems to be indifferent to genre.

Lexical diversity is achieved through avoiding repetition of the words already existing in the written production. The variety of vocabulary used also ensures the lexical diversity (Johansson, 2008, p. 62).

Tömen (2016) conducted a study to investigate the lexical features, namely, lexical density, lexical diversity and vocabulary size in the Turkish ELT majors' argumentative essays and to find out if there is an association between these features and the writing scores they got. The findings indicated that these features did not play a significant role in determining the writing scores. When vocabulary part scores were considered, the only

feature affecting the first-year students' scores was lexical diversity while none of those features had significant effect on the vocabulary part scores of the fourth year students (pp. 48-49). Taking the results into consideration, Tömen (2016) suggests that the relationship between the lexical features and the scores of writing and vocabulary still remain contradictory, hinting a need for further study.

Readability shows the writing quality. The high score of readability means the sentences in one's writing can be understood easily, whereas low score requires hard work on the part of the readers, which may be undesirable. Checking the readability of the written text, one may avoid writing too complicated texts for the readers to understand thereby ensuring writing quality.

2.7. Factors Affecting EFL/ESL Writing

Evaluating students' written productions is subjective, and this requires assessors to use a holistic or an analytic rubric to mark the writings and measure the quality of students' written productions with respect to some criteria like clarity or content, organization, vocabulary, language use, and mechanics. These rating scales include some of the factors affecting the overall quality of writing as those scales or criteria indicate the properties of a well-developed written production (Llach, 2011, p. 55).

Hinkel (2011) underlines the importance of identifying the relationship between the discourse construction and language use patterns to understand the issues related to ESL/EFL writing and its instruction, suggesting some areas of research on ESL/EFL writing like discourse, topic, cohesion and adverbials (p. 524).

In addition to these areas, there are also some studies examining the relationship between proficiency level and the quality of ESL/ EFL writing. Proficiency level of students are not only important for the teacher training in general but also has a significant effect on EFL students' written pieces. Cross (1995) emphasized the importance of attaining necessary proficiency level or competence before the students majoring in ELT start their faculties and then during the education given in the faculty, the focus of the attention is not on improving students' poor language proficiency but on how to teach English and deal with relevant issues (p. 34).

Despite the general belief that vocabulary, i.e., lexical items, may have a great influence on the writing scores, the previous studies investigating the relationship between the lexical errors and the writing quality (Engber, 1995; Llach, 2005, 2007;

Gönülal, 2012) did not yield meaningful relationship between them. However, Llach (2011) lists the measures of students' vocabulary knowledge that interact strongly with essay scores and these are lexical specificity, diversion, sophistication, originality, variation and number of lexical words (p. 64).

The results of Crossley and McNamara's (2012) study indicated another factor that more proficient writers were observed to use was greater lexical diversity, and more infrequent words than lower-proficiency writers, which was also revealed in the previous studies (Nation, 1988; Reppen, 1994; Engber, 1995; Grant and Ginther, 2000; Meara and Bell, 2001; Jarvis, 2002). In addition to this, word familiarity, word meaningfulness, word concreteness and word imageability were also investigated in their study and it was revealed that more proficient students use less familiar words which had fewer associations and were less meaningful, more abstract and less imaginable. The results of Crossley and McNamara's (2012) study indicated that there was more lexical diversity at higher proficiency levels compared to lower proficiency levels. Gonzales (2013) also found that native speakers and non-native speakers differ in terms of lexical diversity. However, in Wang's (2014) study, lexical diversity in the written productions of lower and higher-level students did not differ significantly and did not have a significant effect on their writing scores, either.

Lexical complexity is another feature to be considered to have an effect on overall writing quality. In one of the previous studies, L2 writers were observed to develop in terms of lexical complexity; however, the development may not be fast or smooth. (Leki, Cummings, and Silva, 2010). Leki et al. (2010) also stated that length is another feature that differentiates L2 students from L1 writers since L1 writers were seen to write more words per sentence.

Considering the issues and contradicting research findings aforementioned, it can be concluded that there is a need for analyzing lexical features in the written productions of EFL/ESL students, Turkish ELT majors in particular, due to the limited research on that issue in Turkey setting.

2.8. Aim of the Current Research and Research Questions

To investigate the relationship between the lexical errors made by the Turkish ELT candidates, the lexical features identified in their essays, and the overall quality of the essays produced by them, the following research questions will be answered:

1. Do the lexical errors found in the Turkish ELT Department students' argumentative essays differ in terms of

a. types and frequency of lexical errors?

b. the year of study?

2. Do the length of essays and their productive lexical level change according to the year of the study?

3. Do lexical features and errors relate to overall composition quality as expressed in its score?

3. METHODOLOGY

3.1. Introduction

In the methodology section, the research design is presented. Then, the pilot study is briefly explained. Then, the context and the scope of the study is introduced. After that, the information and details about the participants in the current study are presented. Finally, data collection and data analysis procedures are explained in detail.

3.2. Research Design

The present study aims to identify and categorize the lexical errors in the Turkish ELT Department students' argumentative essays and then investigate the relationship between lexical features, lexical errors and overall quality of writing. To do this, the first aim was to determine the types and frequency of lexical errors made by the first and third-year Turkish ELT department students and find out whether the lexical errors they made differed according to the year of the study. The second aim was to determine whether the year of the study had an effect on the length of the essays and the participants' productive lexical level. The final aim was to find out whether the lexical features and errors had an effect on overall essay quality as expressed in its score.

The cross-sectional design was employed in the current study as this design allows researchers to collect data from different groups in an educational setting and compare them. In addition to this, data collection is carried out "at one point in time" (Creswell, 2012, p. 378). In the present study, the two groups in the same school setting; namely, the first- and third-year ELT department students, were compared to see whether they differed in the type and frequency of lexical errors they committed in the argumentative essays they were asked to write once. It was expected that the education they received in the department would contribute to their proficiency level; therefore, the researcher wanted to figure out if it was the case, comparing the lexical errors committed and lexical features used in their writings.

The current study employed quantitative research design as it mainly aimed to investigate and describe the lexical errors committed and lexical features used by Turkish ELT department students. This research design has major characteristics of a quantitative research as it allowed the researcher to collect numeric data to describe trends, compare groups, and relate variables by means of statistical analysis (Creswell, 2012, p. 13). In

this descriptive quantitative study, numeric data is collected, utilizing a taxonomy to find the type and frequencies of the participants' lexical errors, a composition rubric to determine the essay and vocabulary part scores, as well as tools like LFP and Flesch-Kincaid Readability Tests to find out numeric values of lexical features in the data set. The observable and measurable numeric data gained by means of those instruments was used in statistical analysis to find out if there was a relationship between participants' lexical errors, lexical features, essay scores and the year of study. Thus, this descriptive study has also a correlational research design in which the relationship between aforementioned variables and scores was investigated without any external control or intervention (Creswell, 2012, p. 338).

3.3. Pilot Study

3.3.1. Participants in the pilot study

The participants in the pilot study were chosen utilizing convenience sampling, a nonprobability sampling approach, and this approach allowed the researcher to ask individuals who were available, convenient and representative of the target group to participate in the study voluntarily as suggested by Creswell (2012, p. 145). The first- and third-year students were asked to participate in the study voluntarily. These years of study were chosen as the first-year students started the faculty new while the third-year students had finished the skills courses and were expected to have become more proficient due to the education they received in three years.

The participants were Turkish EFL university students studying at Eskişehir Osmangazi University (ESOGU) English Language Teaching (ELT) Department in Turkey. All the participants were accepted to the ESOGU ELT Department based on the scores they got in the Foreign Language Test in Undergraduate Student Placement Examination (LYS), a high-stake standardized test administered by the Student Selection and Placement Center. This test composed of various multiple-choice questions to assess test-takers' grammar, vocabulary and reading skills, but it did not consist of speaking, writing or listening sections. The points required to be admitted to ELT program at ESOGU varied between 408 and 458 out of 500, and these points are considered as relatively high scores when compared to those in other education faculties. The participants were B2 and + level students who received a score of 75 and above in the

proficiency exam administered by the Compulsory English Language Preparatory program exclusively offered to ESOGU ELT students. This exam consisted of three main parts. First part was a written part composed of multiple choice and open-ended questions to assess students' listening and reading skills as well as their language use. In the second and third parts, students' writing and speaking skills were assessed to determine to what extend their productive skills had improved.

There were 44 participants, 20 of whom were first-year students while 24 of whom were third-year students. Their ages were between 17 and 24. The ages were reported here to indicate the similarity in the ages of the Turkish students participating in the pilot study and native English students from the baseline corpus, ICLE. The age was not considered as a factor in the study.

3.3.2. Methodology and data collection

For this study, forty-four argumentative essays written by the first- and third-year Turkish ELT department students were collected by the end of the second semester in the 2015–2016 academic year. The participants were asked to write an argumentative essay on a given single topic in 90 minutes without using any reference tools, including dictionaries. To decrease the variability, the participants were asked to write a timed essay on a single topic in a classroom environment and the topic of the argumentative essay was capital punishment. The topic was chosen from the International Corpus of Learner English (ICLE). The timed essays written by the native English students aged between 19 and 23 were chosen to be used as the baseline for the study. As the essays compiled in the ICLE were mostly written in argumentative genre, the participants were asked to write argumentative essays, a prominent genre in many studies analyzing lexical errors or features (Schmitt and Hemchua, 2006; Yüksel, 2012; Tömen, 2016). In addition, Qin and Uccelli (2016) state that argumentative essays are widely used to study the predictors of quality of writings written by EFL students at graduate or undergraduate level (p. 6) and reports that participants produced more complicated lexicosyntactic features, with more long words, abstract nouns, and words per clause in the argumentative essays compared to narratives (p. 14).

The participants in the current study were already familiar with this genre as both the first and the third-year students already did the writing course and were taught argumentative essay. Thus, no training was necessary. However, it should be noted that

the first-year participants were still dealing with essays in the writing course at the time of the study, whereas the third-year students had not dealt with that specific genre for two years then. This may have an effect on the total scores of their essays.

All the essays compiled from the participants were typed into the computer and then the essays written by the participants were read and graded by one native and two nonnative English instructors, including the researcher herself. Essays in the pilot study were assessed by means of an analytical rubric named Writing Criteria for AUSFL (see Appendix-1). This rubric was developed in-house by a state university to assess writing skills of the students studying in the English Language Preparatory program. It was not specifically designed to evaluate ELT majors' writing skills. After the pilot study, the researcher replaced Writing Criteria for AUSFL (Anadolu University School of Foreign Languages) for some concerns and practical issues like insufficient details about the vocabulary part score, a need for more scientifically acknowledged rubric for research purposes. Thus, during the actual study the 100-point scale rubric ESL Composition Profile (see Appendix-2) was chosen to mark the participants' essays. This rubric was also used in the previous studies investigating the relationship between the lexical errors and overall writing quality (Llach, 2007, 2011).

Grading the papers first was thought to be necessary to make raters more familiar with the essays prior to the analysis of lexical errors. The marks given by three raters were recorded. As suggested by the English instructors using the rubric then, the papers with more than 4 points score discrepancy out of 20 points were reread by the raters and the disagreements were negotiated. After the disagreements were negotiated between the researcher, other non-native rater and the native speaker rater, the inter-rater reliability was calculated and found to be 0.97. Then the mean scores of the essays were used in the statistical analysis so as to find out whether the year or the number of lexical errors has an influence on the essay scores participants had.

In order to analyze the data, lexical errors were identified, classified into categories, and analyzed using Schmitt and Hemchua's (2006) lexical error taxonomy (see Appendix-3), which is a list of lexical errors categorized into two main parts: formal and semantic errors. The lexical errors categorized into 24 subcategories of formal and semantic errors were counted to calculate the frequencies of these errors. Repeated lexical errors in the same essay written by one participant were counted only once so as to gain more precise data about the frequencies of particular errors made by different students as

suggested by Schmitt and Hemchua (2006). The errors were analyzed at word, phrase and sentence levels.

It should be noted that while analyzing, coding and classifying the participants' lexical errors in the pilot study, a new type of errors emerged in the data set, and consequently, another subcategory called B.2.5 Idiomatic expressions type was added to Schmitt and Hemchua's (2006) lexical errors taxonomy under B.2. Collocation errors in B. Semantic errors category. This new type errors occur when the language students fail to use a necessary component of an idiomatic expression or a collocation as in the example, "will *crime* <commit a crime>.

3.3.3. Findings of the pilot study

The results of the pilot study showed that in the forty-four argumentative essays written by the first and third-year Turkish ELT department students, there emerged 499 lexical errors, 247 of which were made by the first-year students and 252 of which were made by the third-year students as can be seen in Table 3.1. That means each paper from the first and third year contains approximately 12.4 errors and 10.5 errors, respectively.

Table 3.1. *Summary of the errors' frequency in formal and semantic error categories*

	1st year		3rd year	
Error types	**Token**	**%**	**Token**	**%**
A Formal errors	**114**	**46**	**97**	**38**
1 Formal misselection	**29**	**12**	**37**	**15**
2 Misformations	**21**	**9**	**11**	**4**
3 Distortions	**64**	**26**	**49**	**19**
B Semantic errors	**133**	**54**	**155**	**62**
1 Confusion of sense relations	**22**	**9**	**45**	**18**
2 Collocation errors	**94**	**38**	**94**	**37**
3 Connotation errors	**1**	**0**	**1**	**0**
4 Stylistic errors	**16**	**6**	**15**	**6**
TOTAL	**247**		**252**	

Both groups were observed to make more semantic errors than formal errors. When the categories involved in the formal errors were considered, for both groups the distortions category (26% for the first year and 19% for the third year) was the most problematic one followed closely by the formal misselections category (12% and 15% for

the first- and third-year participants, respectively). The misinformations category (9% for the first year and 4% for the third year) seemed to be the least problematic one as it is presented in Table 3. When the semantic errors categories are considered, the most problematic category was the collocation errors for both the first (38%) and the third (37%) year participants. This was followed by confusion of sense relations (9% for the first year and 18% for the third year) and stylistic errors (6% for both the first year and for the third year) as can be seen in Table 3.1.

When all the lexical error types in 25 subcategories were ranked in terms of frequency, the preposition partners error type was the most frequent one for both groups, which accounted for 20% of all errors as can be seen in Table 3.2.

Table 3.2. *Ranks, categories, frequencies, and percentages of errors*

		1st year			3rd year	
RANK	**Error types**	**Token**	**%**	**Error types**	**Token**	**%**
1	B.2.4 Preposition partners	49	20	B.2.4 Preposition partners	49	19
2	B.2.1 Semantic word selection	30	12	B.1.4 Near synonyms	42	17
3	A.3.3 Misselection	25	10	B.2.1 Semantic word selection	36	14
4	A.1.1 Suffix type	24	10	A.1.1 Suffix type	27	11
5	A.2.3 Calque	21	9	A.3.1 Omission	18	7
6	B.1.4 Near synonyms	21	9	A.3.3 Misselection	15	6
7	A.3.1 Omission	18	7	A.2.3 Calque	11	4
8	A.3.2 Overinclusion	13	5	A.3.2 Overinclusion	11	4
9	B.4.2 Underspecification	12	5	B.4.1 Verbosity	8	3
10	A.3.4 Misordering	8	3	B.4.2 Underspecification	7	3
11	B. 2.5 Idiomatic expressions	6	2	A. 1.3 Vowel-based type	5	2
12	B. 2.2 Statistically weighted preference	5	2	A.1.4 Consonant-based type	4	2
13	B.2.3 Arbitrary combinations	4	2	A.3.4 Misordering	4	2
14	B.4.1 Verbosity	4	2	B. 2.2 Statistically weighted pref.	4	2
15	A. 1.3 Vowel-based type	3	1	B.1.1 General term for specific one	3	1
16	A.1.2 Prefix type	1	0	B.2.3 Arbitrary combinations	3	1
17	A.1.4 Consonant-based type	1	0	B. 2.5 Idiomatic expressions	2	1
18	B.1.1 General term for specific one	1	0	A.1.2 Prefix type	1	0
19				A. 3.5 Blending	1	0

The suffix type was in the second rank, accounting for 13% for first year and 16% for the third-year participants' errors. While misselection and omission were placed in the fourth and fifth ranks for the first-year participants, these subcategories were placed in the sixth and fifth ranks for the third-year participants. The near synonyms and semantic word selection types were placed in the fifth and sixth ranks for the first-year participants while these types were in the third and fourth ranks for the third-year participants. The overinclusion and calque error types were also frequent. Overinclusion was placed in the eighth and seventh ranks for the first- and third-year participants while calque error type was ranked as the seventh and eighth most frequent lexical error type.

The most common error types for both groups were preposition partners and suffix types. Near synonyms, semantic word selection, omission, and misselection were also among the common errors frequently occurred. In the blending category, general term for specific one, and inappropriate co-hyponyms categories, the third-year participants made errors while the first-year participants made no errors. However, there were no occurrences of errors in some categories, namely, false friends, coinage, connotation errors, and under-specification. It is interesting that the participants from both groups made only one error in prefix type error category.

Regarding the formal error types subcategories, the most problematic error type identified in the participants' essays was incorrect suffixation. While 24 percent of all formal errors made by the first-year students were in the suffix type, it was 27 percent for the third-year participants. Distortions or misspellings, namely omissions, misselections, and overinclusion error types, followed suffix types and were among the first five most frequent errors in both groups despite the difference in rank. The calque error type was found to be in the fourth and fifth rank for the first- and third-year participants, respectively. Misordering and consonant-based type were the categories less problematic for the participants.

When the semantic error types subcategories were taken into consideration, the preposition partners, and semantic word selection types were placed in the first ranks in both groups and compromised 79 % and 85% of all semantic errors for the first- and third-year participants, respectively as it can be seen in Table 3.2. These two categories belong to the collocation errors category, and by looking at the frequency of errors committed, it can be concluded that the participants had serious problems with collocations. In addition,

near synonyms error type frequency was too high to be ignored and this was the only frequent error in confusion of sense relations category.

3.3.4. Excerpts exemplifying the most frequent errors in the data set.

3.3.4.1. Preposition partners (B.2.4)

In this category, there are three types of preposition partners errors; namely, omission, addition and substitution. Omission occurs when learners fail to use the prepositions required, whereas addition of prepositions occurs when a preposition is used although it is not required. The last type is incorrect substitution for a preposition to be used with certain adjectives, verbs or nouns. The following excerpts from the data set illustrate the preposition partners type errors.

Omission: …are not sentenced **<to>** a punishment

…family think **<about>** their children more than

… not afraid **<of>** capital punishment

Addition: If death penalty is executed, people avoid <~~**from**~~>*commit[ting]* a crime.

Substitution: …spent 15 million dollars in 2014 ~~for~~ **<on>** executions

3.3.4.2. Suffix type (A.1.1)

Due to the synformy, language students may be confused and commit suffix type errors. There are two kinds of suffix errors to be identified and coded. The first one occurs when a lexical item within the same word class is used incorrectly in a context. For example, in the following sentence from the data set "***Creation*** *is a really important trait for an artist.",* the word class or part of speech is correct but the wrong word in this word family is chosen. Both creation and creativity are noun forms of the verb create; however, in the sentence given above the word creativity is the correct one to make a meaningful sentence. Another example for this type of errors can be seen in the excerpt "using capital punishment is not ***ethic*** **<ethical>"**.

The second type of suffix errors is confusion in parts of speech, or incorrect word formation where the participants failed to use the correct word class of a lexical item and committed an error. The examples for this type errors from the data set are as follows:

…just about ***live*** **<life>** or death.

…punished in a ***pain*** **<painful>** way.

They ***choice*** **<choose>**, the bad side.

3.3.4.3. Misselection (A.3.3)

These are the words that are not found in English, and these errors occur when students misspell the English words they attempt to write. For example, students come up with the word *delitouse* while trying to use the word "delicious" *(*Schmitt and Hemchua, 2006, p. 10). The followings from the data set exemplify this type of errors.

It sounds ***curial*** **<cruel >** at first

...***chaws*** **<chaos>**…

…***mitter*** **<neither >**…

it is impossible to reclamate **<reclaim>**some criminals.

3.3.4.4. Omission (A.3.1)

Omission errors also belong to distortions and they occur when students fail to use necessary letter as can be seen in the following examples extracted from the pilot study data set:

…***Defed*** **<defend>**…

When it is done, the **word** **<world>** will be a fair and *liveable*…

…more ***livible*** **<liveable>** place…

3.3.4.5. Near synonyms (B.1.4)

Students use a wrong near synonym, which results in meaningless or unclear sentences. Following the taxonomy developed by Schmitt and Hemchua (2006), three cases of near synonyms were identified. First, the informal words used instead of formal ones in the essays were identified and categorized as neat synonym errors as can be seen in the following excerpts from the data set.

…he ***gets out of*** **<is released from>** prison and commits a crime…

For example, they are *rapers*, killers ***etc***. **<and so on>**.

Secondly, the words that were close in meaning, but different in usage were identified and coded. The following excerpt from the pilot study data set exemplify near synonym errors in this category.

…be the right *think* to punish the ***guilties*** **<criminals>** to death,…

People who are rapist, terrorist and ***violent*** **<villain>** must die…

...attitde towards them from both their ***around*** **<surroundings>** and themselves.

Thirdly, the words which are not identical in meaning despite being synonyms were identified and coded as near synonyms errors as can be seen in the following samples from the data set:

…his/her life should ***be finished*** **<come to an end>**.

…capital punishment will indicate the ***consistency to*** **<determination about >** these crimes.

3.3.4.6. Semantic word selection (B.2.1)

This error type includes semantically determined word selection or inappropriate collocations. Sample errors from the participants' argumentative essays are as follows:

…the punishment ***condemns*** **<is given to>**the criminal to be executed by…

…death sentence has been ***in act*** **<implemented>**for years.

Many of them ***call*** **<consider>** death penalty as a murder.

A study ***made*** **<** **done/carried out >**by METU…

Death penalty should be legalized in order to ***threat*** **<deter>** a person *from committing a crime*, provide justice

Capital punishment has been ***executed*** **<implemented>** since…

3.3.4.7. Calque (A.2.3)

This error type includes translating a word or phrase from the students' mother tongue. Some of the expressions were idiomatic ones and participants could not find the equivalent of these expression because of the cultural differences in L1 and L2 as in the first example from the data set:

…***stays as a huge black point in the livers of*** **<X>** guilty people's relatives

Riots ***birthes*** from fear. **<results/arises>**

…life in prisons. They are ***found*** **<X>** together with other *guilties*.

…so they do not ***take a news about their life*** **<hear from them>**.

It is possible to encounter with ~~**the idea of**~~ Capital Punishment.

…criminals ***take less punishment*** **<are punished less>** for this crime.

...who knows to be executed ***in the result*** **<as a result/because>**

of the rape cannot dare to do this.

You don't ***give a place in your life*** to someone who betrays.

Ever since ***entrance of the mankind to the human rights era***, …

3.3.4.8. Overinclusion (A.3.2)

This type of error also belongs to distortions and it occurs when the students misspell a word, adding one or more letters. These words in the participants essays were identified and coded, and the followings are the samples from the data set in the pilot study.

…***dissuassive*** **<u>≤ dissuasive ></u>**…

…***perison*** **<u>≤ prison></u>**…

…can only he ***archieved*** **<u>≤ achieved ></u>** with the capital punishment…

3.4. The Context and Scope of the Current Study

The current study was conducted in Eskişehir Osmangazi University Department of Foreign Language Education, English Language Teaching Program which started education at undergraduate level in 2013-2014 academic year. The students were expected to get minimum 75 points so as to be exempt from compulsory intensive language preparation course after being admitted to the ELT program. This mandatory English preparatory program was specifically designed for the students of Department of Foreign Language Education, English Language Teaching Program and offered an integrated course supported with supplementary reading and writing packs at intermediate and upper-intermediate levels between 2013 and 2018. In the ELT Prep program, the exit level was B2 level on the Common European Framework of Reference for Languages (CEFR).

The participants were the first and third-year students, most of whom either studied at the Compulsory English Language Preparatory program exclusively offered to ELT students or were exempt from the preparatory program, taking the proficiency exam administered by that program. In the prep school, vocabulary and writing skills were taught both explicitly and implicitly. The students were asked to do a lot of mechanical and communicative vocabulary activities, exercises and assignments where they dealt with word formation, parts of speech, guessing vocabulary, collocations, phrasal verbs, idioms, synonyms, antonyms, or connotation. In addition, when the participants started their department, the Lexical Competency, Contextual Grammar, Academic Reading

Writing, and Linguistics I-I courses were offered to teach vocabulary implicitly or explicitly (see Appendix-4 for the detailed Foreign Language Department ELT undergraduate program). Lexical Competency course was offered in the first-year spring semester and designed to teach students academic vocabulary, roots and affixes (i.e., prefixes, suffixes), etymology, synonyms - antonyms, and collocations. However, the course was offered only for a semester, which was too short to make students deal with each and every bit in detail and gain a deeper understanding into issues regarding vocabulary. In the Academic Reading and Writing I-II and Contextual Grammar I-II courses, they learned more about the parts of speech. The courses provided for the second-year students involved linguistics, and in that class, students were taught a chapter where word formation processes like coinage, blending, as well as morphology were introduced.

They were also taught writing explicitly and implicitly both in the Compulsory English Language Preparatory program and their department. In the ELT prep school, they were taught sentence structure, unity and coherence, paragraph structure and different types of academic paragraphs like process, compare -contrast, and opinion paragraphs. Writing portfolio where students' written productions were coded for them to correct their own mistakes was an important part of the assessment. In their first year in the ELT department, the participants in both groups took the Advanced Reading and Writing I and II courses where they were required to write different types of academic paragraphs in the first semester and essays along with a research paper in the second semester. Therefore, the participants were familiar with the task they were required to do in the study, so no extra training was necessary. However, the first-year students were asked to write an argumentative essay for this research just after they were taught argumentative essay genre in their Academic Reading and Writing course while the third-year students were asked to do so two years after they completed Academic Reading and Writing course at the time of the research. It is also of importance to note that these Academic Reading and Writing I and II courses were replaced with the courses Writing Skills I - II and Reading Skills I – II after the changes in the ELT curriculum in 2018. This change may benefit ELT department students greatly as one combined course offered for both academic reading and writing before 2018 was not enough to cover all the topics in this course efficiently and effectively. In addition, Contextual Grammar I – II and Lexical Competency courses have not been offered since then. Instead, Structure of English course has been provided in the program since 2018.

3.5. The Participants of the Current Study

The participants in the current study were chosen using the convenience sampling, a nonprobability sampling approach. This approach allowed the researcher to ask individuals who were available, convenient and representative of the target group to participate in the study voluntarily as suggested by Creswell (2012, p. 145). All the necessary permission to carry out the study was taken and the first- and third-year students were asked to participate in the present study voluntarily after signing the consent form (see Appendix-5 for the consent form and Appendix 6 for ethics committee approval). These years of study were chosen on purpose as the first-year students started the faculty new and the third-year students were expected to become more proficient due to the education they received in three years. The cross-sectional design of the study made it possible to collect same data from these two groups of the ELT department students at different stages of development.

The participants in the study were the Turkish EFL university students who had been studying at Eskişehir Osmangazi University (ESOGU) English Language Teaching (ELT) Department in Turkey in different years. All the participants were accepted to the ESOGU ELT Department based on the scores they got in the Foreign Language Test in the Undergraduate Student Placement Examination (LYS), a high-stake standardized test administered by the Student Selection and Placement Center. This test composed of various multiple-choice questions to assess test-takers' grammar, vocabulary and reading skills, but it did not consist of speaking, writing or listening sections. The scores required to be admitted to ELT program at ESOGU were between 408 and 458 out of 500, and these scores are considered as relatively high scores when compared to those in other education faculties.

The participants' proficiency level was B2 level on the Common European Framework of Reference for Languages (CEFR). They had received 70 and above in the proficiency exam administered by the Compulsory English Language Preparatory program exclusively offered to ESOGU ELT. The proficiency exam consisted of three main parts: a written part composed of multiple choice and open-ended questions to assess students' listening and reading skills as well as their language use, a writing part to assess students' writing skills at paragraph level and a speaking part to evaluate their speaking skills. The participants were the candidates of English teachers who had been studying

in the first and third year of the university. Their ages are between 17 and 24. The age was reported but not considered as a factor to be investigated in the current study.

3.6. Instruments and Data Collection Procedures

To be able to answer the first research question regarding the type and frequency of errors committed by the first- and third-year Turkish ELT department students, Schmitt and Hemchua's (2006) lexical errors taxonomy was used to identify, code, and classify the lexical errors in these participants' argumentative essays. For this study, 107 argumentative essays written by the first- and third-year Turkish ELT department students were collected at the beginning of the second semester in 2016 – 2017 academic year. The participants, all the students in their first and third years of study, were asked to write an argumentative essay on a single topic in 90 minutes without using any reference tools, including dictionaries. To decrease the variability, the participants were asked to write a timed essay on a single topic in a classroom environment. The topic of the argumentative essay was "Great inventions and discoveries of the 20th century and their impact on people's lives". The topic was chosen from the International Corpus of Learner English (ICLE). The timed essays were written by the native English students aged between 19 and 23 and were the baseline for the present study.

To answer research questions 2 and 3, Lexical Frequency Profile (LFP), WordSmith Tools KeyWords software program, The Flesch–Kincaid Readability tests were used to determine the lexical features, Flesch–Kincaid Readability tests were used to determine the lexical features and text complexity in the argumentative essays written by the first- and third-year students in the ELT department and the native English students from ICLE.

Lexical Frequency Profile (LFP) developed by Laufer and Nation (1995) was utilized in the study to have lexical text analysis of the written essays and then to determine the participants' productive vocabulary use. It is used to gain information about whether the students at different levels have any lexical difference in their writings.

WordSmith Tools KeyWords software program was used to analyze the lexical diversity in the essays written by the participants in the study and it provided necessary information, such as alphabetical word lists, frequency of the words, total number and length of the words, and so on. Thus, the lexical diversities of the argumentative essays written were analyzed and compared in different groups in the study.

The Flesch–Kincaid Readability tests were used to determine the complexity of the participants' written productions (https://readability-score.com/). Based on the word and sentence lengths, the Flesch Reading Ease and the Flesch–Kincaid grade level tests indicate how difficult a text is to understand. The results of the test enabled the researcher to compare the students' essays in terms of writing complexity, revealing statistics of word count, sentence count, and words per sentence.

3.7. Data Analysis

All the essays compiled from the participants were typed into the computer and each participant's essay was saved as a separate file.

After the data were collected, the essays written by the participants were read and graded by one native and one nonnative English instructor. The participants' argumentative essays were marked using the 100-point scale rubric ESL Composition Profile (see Appendix-2) This rubric was also used in the previous studies investigating the relationship between the lexical errors and overall writing quality (Llach, 2007, 2011). This is an analytical scoring rubric, including content, organization, vocabulary, language use and mechanics. The grades given by the raters were recorded and the overall and vocabulary part mean scores were calculated. Then, the mean scores were used in the statistical analysis.

In order to analyze the data, the lexical errors in the data sets were identified, classified into categories, and analyzed utilizing a lexical error taxonomy developed by Schmitt and Hemchua's (2006). This lexical error taxonomy is a list of lexical errors categorized into two main parts: formal and semantic errors in Table 3.3 (see Appendix-3 for a more detailed taxonomy with definitions, explanations and more samples).

Table 3.3. Schmitt and Hemchua's (2006) *lexical error taxonomy*

LEXICAL ERRORS	SAMPLES
A FORMAL ERRORS	
A.1 Formal misselection	
A.1.1 Suffix type	considerable/considerate, globalization/globalized
A.1.2 Prefix type	reserve/preserve, consumption/resumption/assumption
A.1.3 Vowel-based type	seat /set, manual /menial
A.1.4 Consonant-based type	*save/safe, three/tree*
A.1.5 False friends	cake-pasta, service bus –servis, alliance ring – alyans

Table 3.3. (Continued) Schmitt and Hemchua's (2006) *lexical error taxonomy*

A.2 Misformations	
A.2.1 Borrowing)	I shoot him with gun in kopf <In German kopf = head>)
A.2.2 Coinage	Smoking can be very nocive to health <In Portuguese nocivo = harmful
A.2.3 Calque	We have to find a car to bring us go to <bring us to> the hospital.
A.3 Distortions	
A.3.1 Omission	*intresting <interesting*
A.3.2 Overinclusion	*dinning room <dining room*
A.3.3 Misselection	*delitouse <delicious*
A.3.4 Misordering	*littel <little*
A.3.5 Blending	*travell <travel + travelled*
B SEMANTIC ERRORS	
B.1 Confusion of sense relations	
B.1.1 General term for specific one	*We have modern equipment <appliances> in our house.*
B.1.2 Overly specific term	*The colonels <officers> live in the castle.*
B.1.3 Inappropriate co-hyponyms	*The city has good communication < public transport > such as a lot of buses.*
B.1.4 Near synonyms	*get up –wake up, live- stay, have-there are, get (informal)-gain (formal)*
B.2 Collocation errors	
B.2.1 Semantic word selection	The city is grown <developed / crooked years<stick>.
B.2.2 Statistically weighted Preference	An army has suffered big losses <heavy losses>.
B.2.3 Arbitrary combinations	hike-hitch <hitch-hike>
B.2.4 Preposition partners	OMISSION: Think <of>him; ADDITION: to fear of <Φ>; SUBSTITUTION: surrounded with –by; by legs – on foot
B.2.5 Idiomatic expressions*	*will* <commit> *crime*
B.3 Connotation errors	skinny-slim; talkative-nosy; strong-willed, pigheaded; There are too <many > other advantages of living in the city.
B.4 Stylistic errors	
B.4.1 Verbosity	I informed my girlfriend of the party through the medium of telephone.
B.4.2 Underspecification	Although cars in the country are lower. >> Although there are fewer cars /Although car numbers …are lower

* **B2.5 Idiomatic expressions** was added by researcher in the current study

Llach (2011) found this taxonomy useful for an in-depth analysis, so it was chosen to investigate different aspects of lexical errors in detail. The lexical errors were categorized into 25 subcategories of formal and semantic errors and were counted to calculate the frequencies of these errors. Repeated lexical errors in the same essay written by one participant were counted only once so as to gain more precise data about the

frequencies of particular errors made by the different students as suggested by Schmitt and Hemchua (2006). The errors were analyzed at word, phrase and sentence levels.

James (1998) indicates the difference between an error and a mistake. According to his definition, errors occur when language learners have not acquired or learned an L2 form and cannot correct the deviance themselves as they do not know the rules in the target language. However, mistakes are the errors language learners commit even though they know the rules in L2, and those learners may correct the deviant forms if they are asked to (p. 85). In addition to this distinction, Brown (1994) also classifies mistakes as performance errors and sees errors as a sign of L2 learner's competence (pp. 257-258). Despite these clear definitions, it is noteworthy that what is assumed as an error may be a mistake due to the fact that the language learners may have more knowledge of language than they are expected to know (James, 1998, p. 86). Also, Brown (1994) points out that it may not always possible to make a distinction between an error and a mistake (p. 258). Therefore, despite the clear definitions provided by James (1998, p. 85) and Brown (1994, pp. 257-258), it is almost impossible to decide whether the incorrect lexical item was an error or a mistake while identifying errors. Thus, the researcher decided to follow the route that the researchers in the previous studies followed, so the lexical items that were unacceptable or different from Standard English were accepted as errors and classified, using the Schmitt and Hemchua' (2006) taxonomy.

In the current study, the first rater was the researcher herself. She was a non-native speaker of English and an experienced English Language instructor who had been working at a state university for twenty years. The second rater who was a native speaker of English and was doing her master's degree in ELT at that time and she was asked to analyze the data collected from the participants in the current study, utilizing the taxonomy provided. After the disagreements (257 tokens disagreed) were negotiated between the researcher and the native speaker, the inter-rater reliability was calculated and found to be 0.77, which was significant, indicating a moderate level of agreement.

The data gained through the Lexical Frequency Profile (LFP), WordSmith Tools KeyWords software program and The Flesch–Kincaid Readability tests were used to compare the writing complexity of the argumentative essays written by the participants in two different groups. The essays written by the participants were uploaded in the Lexical Frequency Profile (LFP) software program and the lexical density scores were gathered for each individual participant. In addition, the essays were also submitted to the

Flesch–Kincaid Readability software individually and as compiled versions for the first- and second-year students. The readability tests yielded the Flesch–Kincaid ease score for individual participants and for groups of first- and third-year students. The ease score calculation involves the factors such as sentence length, sentence count, word length, and word count. That is why there was no need to analyze them separately. The frequency of errors that the individual participants made was also recorded to be used in statistical analyses. Then, the lexical density score, Flesch–Kincaid ease score, and the frequency of errors were used to analyze the relationship between the lexical features, lexical errors, and overall writing quality, utilizing the statistical methods and interpreted to find out whether the participants in the first and third years show different levels in writing quality as expressed in its score.

The essays written by the participants in the current study were graded to find out the writing scores using ESL Composition Profile rubric by two raters. The rubric named Writing Criteria for AUSFL (Anadolu University School of Foreign Languages) (see Appendix-1) used in the pilot study but it was changed due to some concerns. The Writing Criteria for AUSFL was designed and used to evaluate students' written productions by the Anadolu University School of Foreign Languages and the native speaker rater working there was familiar with the rubric; however, after the pilot study, there emerged a need for a more detailed marking of the essays as vocabulary part score was involved in the statistical analysis. Therefore, an analytical rubric; namely, ESL Composition Profile was chosen in the current study. Another concern was to use a widely accepted rubric in the research and ESL Composition Profile was frequently used in similar scientific studies, which suggests it is more valid and reliable. In addition, it allowed the researcher to score different subskills in a more detailed way.

The raters were both English instructors working with the Turkish students of English at state universities. One of them was a native speaker of English who also detected and categorized the errors in the taxonomy in the present study and the other was a nonnative speaker of English working as an instructor giving writing courses for years. The raters marked the essays, and more than a ten-point difference in the scores out of 100 points was regarded as a score discrepancy. Then the inter-rater reliability was calculated. The Pearson correlation coefficient for native speaker rater and nonnative speaker rater was .563, which is significant ($p<.001$ for a two-tailed test) based on 107

complete observations. The magnitude of the association was approximately moderate. Average scores were calculated and used in statistical analysis.

The overall scores of the essays were the points given to content, organization, vocabulary, language use, and mechanics parts separately. The overall scores were used to express writing quality and they were used in statistical analysis to compare the first- and third-year students' writing level. The participants in the first and third were grouped on the basis of the scores they got. The participants with the scores 50-59, 60-69, 70-79 and 80-89 were put into groups 1, 2, 3, and 4, respectively so as to find out if the lexical errors differ in those groups, as well.

In addition to overall writing score, average scores of the vocabulary part were also calculated and used in a statistical analysis to find out whether the lexical errors made in the participants' essays predicted the vocabulary part score.

4. RESULTS AND DISCUSSION

4.1. Introduction

In this section, in addition to the results concerning the types and frequency of lexical errors made in the Turkish ELT Department students' argumentative essays, the results of the statistical analyses were reported to answer the following research questions:

1. Do the lexical errors found in the Turkish ELT Department students' argumentative essays differ in terms of

    a. types and frequency of lexical errors?

    b. the year of study?

2. Do the length of essays and their productive lexical level change according to the year of the study?

3. Do lexical features and errors relate to overall composition quality as expressed in its score?

Argumentative essays written by the participants were compiled, and the lexical errors emerged in these essays were identified and tagged. Then, these lexical errors identified and coded were categorized using the Schmitt and Hemchua's (2006) lexical error taxonomy (see Appendix-7 for sample papers with lexical errors categorized).

The lexical errors made by the first- and third-year students were analyzed, and then the frequency and the percentage of these errors emerged in each main and subcategory were calculated so as to answer the research questions 1a and 1b.

In addition, the participants' argumentative essays and the argumentative essays of native speakers from ICLE were analyzed using software programs, namely the Lexical Frequency Profile (LFP), WordSmith Tools, KeyWords and The Flesch–Kincaid Readability so as to obtain data to reveal the lexical features and text complexity in the Turkish ELT Department students' essays. As a final step, two raters graded the essays written by the participants, and the average scores of the essays and vocabulary parts were calculated for each participant. The data gained by means of these procedures were used in the statistical analyses to answer the second and third research questions.

4.2. Results

4.2.1. The type and frequency of the lexical errors in the first and third-year Turkish ELT Department students' argumentative essays

4.2.1.1. All lexical errors committed in the data set

As shown in Table 4.1 below, when 107 argumentative essays written by the first and third-year Turkish ELT department students were analyzed, the total number of the lexical errors committed by both groups was 1416. The number of the lexical errors committed by the first-year students and third-year students were 697 and 719, respectively.

Table 4.1. *Summary of the errors made in two main categories: formal and semantic*

	Of all errors		1st year		3rd year	
Error types	**Token**	**%**	**Token**	**%**	**Token**	**%**
A. Formal errors	472	33.33	255	36.59	271	30.18
B. Semantic errors	944	66.67	442	63.41	502	69.82
TOTAL	**1416**		**697**		**719**	

When the two main categories of all lexical errors compared, both the first- and third-year participants were observed to make more semantic errors than formal errors as shown in Table 4.1 above and it is noteworthy to state that the number of semantic errors (66.67%) nearly doubled formal errors (33.33%).

The two main categories of lexical errors present in the lexical error taxonomy are formal and semantic error categories. The formal errors category accounts for 36.59% of the all the lexical errors (no.697) committed by the first-year students and 30.18% of all the errors (no.719) made by the third-year students. This main category includes the errors of formal misselection where language learners fail to select correct suffix or prefix, use a false friend (e.g., "sympathetic" in English and "sempatik" in Turkish are false friends) or choose a wrong word which is not suitable for the context because its visual representation or sound is similar to the proper word to be used in that context.

The second category, semantic errors, accounts for 63.41% of the all the lexical errors (no.697) committed by the first-year students and 69.82% of all the errors (no.719) made by the third-year students. This second main category is classified into four

subcategories, namely, confusion of sense relations, collocation, connotation and stylistic errors. The lexical errors in these categories were detected when the participants failed to choose appropriate words to make meaningful sentences, failed to use correct prepositions or correct words to collocate with the others or chose wrong connotations and wrong choice of style regarding the sentences. In addition to the existing categories, idiomatic expressions category was added by the researcher since when the errors emerged in the data were closely analyzed, there was a group of errors which could not fall into any of the present categories but related to collocative meaning. That is why it was necessary to add a new category where a lexical item in an idiomatic expression is missing and it is almost impossible to convey the desired meaning unless that item is used, for example, "<**see**> it as a game" and "will <**commit**>a crime"

As shown in Table 4.2, of all the lexical errors committed by the participants, the most common error type was collocation errors, followed by the confusion of sense relations error type and formal misselection error type main subcategories. Two of the three most frequent types are semantic errors and they are in the same order for both groups of participants.

Table 4.2. *Summary of the errors' frequency in formal and semantic error categories*

	1st year		3rd year	
Error types	**Token**	**%**	**Token**	**%**
A Formal errors				
1. Formal misselection	**103**	14.78	**76**	10.6
2. Misformations	**63**	9.04	**74**	10.3
3. Distortions	**89**	12.77	**67**	9.3
B Semantic errors				
1. Confusion of sense relations	**106**	15.21	**78**	10.8
2. Collocation errors	**276**	39.6	**355**	49.4
3. Connotation errors	**12**	1.72	**8**	1.1
4. Stylistic errors	**48**	6.88	**61**	8.5
TOTAL	**697**		**719**	

When all the lexical error types in the 25 subcategories in the taxonomy were ranked in terms of frequency semantic word selection error type was the most frequent one, which accounted for 20% of all errors (1416 tokens) made by two groups of participants and this error type is followed by preposition partners (16%) and near synonyms (11%). The frequency of errors in calque (9%) and suffix type (8%) subcategories was also high when compared to the other subcategories. It is noteworthy to mention that neither group

of participants made errors in two categories: false friends and inappropriate co-hyponym. Also, the prefix misselection and vowel or consonant-based types were among the least frequent ones as shown in Table 4.3 below.

Table 4.3. *Type and frequency of lexical errors made by all participants*

LEXICAL ERRORS	TOKENS	%
B2.1 Semantic word selection	288	20.34
B2.4 Preposition partners	230	16.24
B1.4 Near synonyms	161	11.37
A2.3 Calque	127	8.97
A1.1 Suffix type	111	7.84
B4.2 Underspecification	81	5.72
A3.1 Omission	76	5.37
B2.2 Statistically weighted preference	48	3.39
A1.3 Vowel-based type	42	2.97
B 2.3 Arbitrary combinations	40	2.82
A 3.3 Misselection	35	2.47
B4.1 Verbosity	28	1.98
A3.2 Overinclusion	25	1.77
B2.5 Idiomatic expressions	25	1.77
A1.4 Consonant-based type	22	1.55
B1.1 General term for specific one	20	1.41
B3 Connotation errors	20	1.41
A3.5 Blending	13	0.92
A2.1 Borrowing (L1 words)	9	0.64
A3.4 Misordering	7	0.49
A1.2 Prefix type	4	0.28
B1.2 Overly specific term	3	0.21
A2.2 Coinage	1	0.07
A1.5 False friends	0	0
B1.3 Inappropriate co-hyponyms	0	0
TOTAL	**1416**	

4.2.1.2. The comparison of lexical errors made by the first and third Turkish ELT students

As can be seen in Table 4.4 below, although both of participants made lexical errors more frequently in the semantic error category when compared to formal errors, the third-year students made slightly more semantic errors (69.82%) than the first-year students (63.41%). When the participants' level of English and the amount of exposure to the

target language in the ELT department were taken into consideration, the third-year students were expected to make less errors than this.

Table 4.4. *Ranks, categories, frequencies, and percentages of errors*

Error types	***3rd year RANK***	***1st year RANK***	***3rd year Token***	***%***	***1st year Token***	***%***
B2.1 Semantic word Selection	1	2	183	25.45	105	15.06
B2.4 Preposition partners	1	2	120	16.69	110	15.78
B1.4 Near synonyms	3	3	69	9.60	92	13.20
A1.1 Suffix type	5	4	51	7.09	60	8.61
A2.3 Calque	4	5	68	9.46	59	8.46
A3.1 Omission	7	6	35	4.87	41	5.88
B4.2 Underspecification	6	7	50	6.95	31	4.45
A1.3 Vowel-based type	12	8	12	1.67	30	4.30
B2.2 Statistically weighted preference	8	9	22	3.06	26	3.73
B2.3 Arbitrary combination.	9	10	17	2.36	23	3,30
A3.3 Misselection	10	11	16	2.23	19	2.73
B 4.1 Verbosity	13	12	11	1.53	17	2.44
B1.1 General term for specific one	15	13	6	0.83	14	2.01
B2.5 Idiomatic Expressions	11	14	13	1.81	12	1.72
B3 Connotation errors	11	14	13	1.81	12	1.72
A3.2 Overinclusion	13	14	11	1.53	12	1.72
A1.4 Consonant-based …….Type	14	15	8	1.11	11	1.58
A3.5 Blending	16	16	3	0.42	10	1.43
A3.4 Misordering	18	17	0	0	7	1.00
A2.1 Borrowing	15	18	6	0.83	3	0.43
A1.2 Prefix type	17	19	2	0.28	2	0.29
A2.2 Coinage	18	20	0	0	1	0.14
B1.2 Overly spec term	16	21	3	0.42	0	0
A1.5 False friends	18	21	0	0	0	0
B1.3 Inappropriate co-Hyponyms	18	21	0	0	0	0
TOTAL				719	100	697

Another main difference between the groups may be obvious in the frequency order of the error subcategories as presented in Table 4 above (see Appendix-8 for frequencies of lexical errors made in each subcategory as appeared in the order presented in the taxonomy).

The first- and third-year students differed in the rank of the categories in which they made the most frequent errors; however, those five most frequent categories are the same for each group. Preposition partners (15,83%), semantic word selection (15,1%), near synonyms (13,2%), suffix type (8,6%), and calque errors (8,5%) were among the most frequent errors made by the first-year students while the subcategories, namely, semantic word selection (25,5%), preposition partners (16,7%) near synonyms (9,6%), calque errors (9,5%) and suffix type (7,1%) were among the most common error types for the third-year students. Near synonym errors type was placed in the third most frequent error type for both groups, though.

To exemplify the lexical errors emerged in the Turkish EFL students' argumentative essays on the topic "new inventions and discoveries of the 20th century and their effect on people", the original sentences were extracted to present the contexts the most frequent lexical error types as shown in Table 4.5 below (see Appendix-9 for more examples in each category). Each sentence is devoted to one single error type in each category, so other types of errors in the same sentence, if any, were in italic.

In the Table 4.5 above, the lexical errors committed by the first and the third-year participants were presented separately to provide a bigger picture of the lexical errors committed by the first- and third-year participants in the current study. The most and the least frequent error types will be explained in detail, using the samples from this table in the discussion part.

Table 4.5. *Sample sentences extracted from the participants' argumentative essays*

Lexical error types in the taxonomy	**Samples from the data set in the current study**
A FORMAL ERRORS	
A.1 Formal misselection	
A.1.1 Suffix type	**3rd year students' errors:** *People say that they are using phone but they aren't **addictive<addicted>**. *But, some people are **opposite <opposed>** to this idea, *They make us **limit <limited>** and we live simply. *Internet is big **dangerous<danger>** to people lives **1st year students' errors:** *It makes us more angry, **stressful <stressed>** and impatient. *Human are become **addictive <addicted>**to T.V. *people started to live more **comfortable <comfortably>**because of wars and… *Automobile are more **significance <significant>** from a lot of.
A.1.2 Prefix type	**3rd year students' errors:** *Unfortunately, these great inventions **disabuse<abuse>** *from* people. **1st year students' errors:** *because *vehicle of transportation* was so **sufficient < insufficient >** and **unfunction < non-functioning >** and expensive.
A.1.3 Vowel-based type	**3rd year students' errors:** *Firstly, smartphones **effect <affect>**our family relationships… *they have always **seperated <separated >**bacause of **1st year students' errors:** *One of the most **affective <effective>** innovations is… *The amount of violence in T.V series or movies *make* **culturel<cultural>** *destroy***,** also.
A.1.4 Consonant-based type	**3rd year students' errors:** *Because of the **describtion < description>** of the most beautiful woman… **1st year students' errors:** *Mobile phones, television and morse **alfabeth <alphabet>** were turning point for humanity in…
A.1.5 False friends	**NONE**
A.2 Misformations	
A.2.1 Borrowing (L1 words)	**3rd year students' errors:** Inventions and discoveries have effect on our lives **büyük ölçüde < to a large degree >** people start to talk on the social **medya< media >** in **1st year students' errors:** Most important ones are phone, **gırgır < - >** and television.
A.2.2 Coinage	**3rd year students' errors: NONE** **1st year students' errors:** Today, there are more planes, **trens< trains >** and multifuncional cars or bus.
A.2.3 Calque	**3rd year students' errors:** *Today when we feel bored we can **open <turn on> our computers** and play games. ***The real communication doesn't resemble anything. <The real communication is much more than this>** (gestures, mimics, body language and so on.) **1st year students' errors:** * Thanks to Atom bomb The USA **finished the war as a winner <won the war>**. *They would only like to **open <turn on>** TV and watch it.

Table 4.5. (Continued) *Sample sentences extracted from the participants' argumentative essays*

A.3 Distortions	
A.3.1 Omission	**3rd year students' errors:** ***Tecnology <technology>** has a huge role… *They get **everthing <everything>** from *internet and…* **1st year students' errors:** *For example, after using **electricty<electricity>** lighting problems were. *think about other things like **enviroment** <**environment**>,
A.3.2 Overinclusion	*and *latter* the easy lives become **habbits < habits >**. ***Throught <Through>** televisions, internet, PC, they have knowledge… **1st year students' errors:** **%*85 of the people who have **hearth <heart>** attack... *I think we should be thankful for the people who invented and **discoveried <discovered>**them.
A.3.3 Misselection	***3rd year students' errors:*** * we can see automiles **<automobiles>** great impact. * efficient **oppurtinities <opportunities>** to have been more educated and **surrended <surrounded >** among **1st year students' errors:** *such as physical damage, **phycological <psychological>** damage *affecting our live both **poslutively <positively>** and negatively in many ways.
A.3.4 Misordering	**3rd year students' errors: NONE** **1st year students' errors:** ***Throughout centruies< centuries>,*** there have been great inventions
A.3.5 Blending	**3rd year students' errors:** *smart phones are harmfull **<harmful>** to *relation* *I believe that inventions will make lives easier day by day **untill <until>** the *last day* of the world **1st year students' errors:** * we don't know where we come from and **untill<until>** we die *we should be **thankfull<thankful>** to all the *inventers*
B SEMANTIC ERRORS **B.1 Confusion of sense relations**	
B.1.1 General term for specific one	**3rd year students' errors:** *There is no reason to do not use good **points <aspects>** of these inventions because of people who can't manage their time. *They say that students need a leader who can think, not a **kind of machines< computer system>**. **1st year students' errors:** *However, the Internet has some negative **points <aspects>**. *Because of that, we can **call <refer to>** television as a revolutionary solution.
B.1.2 Overly specific term	**3rd year students' errors:** *They will make your life easier and **ginger <spice>** it up. **1st year students' errors: NONE**
B.1.3 Inappropriate co-hyponyms	**NONE**
B.1.4 Near synonyms	**3rd year students' errors:** *First of all they **grab <capture>** the students' attention *On the other hand, mobile phone is **significant <valuable>** to communicate **1st year students' errors:** *and they cannot **think <consider>** a life without Internet. *It **provides <enables >**people to access videos, online games, *Kids are obviously not **gonna <going to>** use these machines.

Table 4.5. (Continued) *Sample sentences extracted from the participants' argumentative essays*

B.2 Collocation errors

B.2.1 Semantic word selection	**3rd year students' errors:** *It **provides <allows>** us to be aware of current news in the fastest way. *These apps **enable us <supply us with>** variety of information *Smartphones makes our life easier with its *multi-function* **aspect <essence>.** **1st year students' errors:** *It **assists <provides>** a lot of benefits for us. *People sent letters to each other and they had a **feedback <response>** months later.
B.2.2 Statistically weighted Preference	**3rd year students' errors:** * In the 20th century, there were many inventions computers, televisions, flight machines **< planes>**. *They can use lots of beneficial programs according to **< based on >** their needs. **1st year students' errors:** ... last invention was Morse **alphabet <code>** *They didn't have to **wash their clothes with their hands < hand-wash their clothes>**.
B.2.3 Arbitrary combinations	**3rd year students' errors:** *Some writers think that television is **box of silly <silly box>**, it consumes lots of time because of films, programs. People choose to **make easier their lives < make their lives easier>** with things such as computer, telephone and etc. **1st year students' errors:** *Up to now from 20th century **<from the 20th century up to now>**, these inventions have been improved day by day. *It **makes easier our life <our lives easier>**
B.2.4 Preposition partners	**3rd year students' errors:** OMISSION: * **In addition <to> this**, we also use our computers *in* work. ADDITION: *All these features increase people's motivation and change their feeling **with <~~with~~>** positively. SUBSTITUTION: * This **result to <in>** bad effect on our lives. **1st year students' errors:** OMISSION: *For instance, a lot of family do not **speak <with>** each other very well ADDITION: *Also, watching televisions **decrease to <to> reading rates** because lots of people want to watch television instead of reading books. SUBSTITUTION: *In school, recently education has been given **with <via>** technological materials and computers play a big role here.
B.2.5 Idiomatic expressions**	**3rd year students' errors:** *which were also most effective *took a role for* the **daily <lives> of** human being; namely, Internet, Smart phones, Social media. *At least, easier and if it has big role in **<doing> our assignment** or daily life. I think it is great discovery. *After **<the invention of the> internet**, it is possible to reach any information any moment with our phones. **1st year students' errors:** *To illustrate, when you send a message to your friend, you want **<to receive>** his or her message immediately. *In other words their first need is of course **meal <food>** and shelter after they can supply these for themselves they can talk about abstract things.

** added into the Schmitt and Hemchua's (2006) lexical error taxonomy used in the current study by the researcher herself.

Table 4.5. (Continued) *Sample sentences extracted from the participants' argumentative essays*

B.3 Connotation errors	**3rd year students' errors:** *They **share** their opinions, thoughts, even **their meals** <**pictures of meals/food**>. *Human being has never been **so <very>** mechanical since they grow up by *falling with their mothers and their care***.** **1st year students' errors:** *Canned foods are another important discovery of 20th century because it **affected <determined>** of wars' *time.* ***Except<aside from>** this property people can play games or read books thanks to their cell phones.*
B.4 Stylistic errors	
B.4.1 Verbosity	**3rd year students' errors:** *To contact with a familiar or a stranger around the world is the easiest thing **compared to the others<X>** *In conclusion, computers are the greatest invention of 20th century **as its contribution <X >**. **1st year students' errors:** *They have also **spoiled the belongings of the mother nature < spoiled the nature>.** *Some say they make children *addictive* and they are harmful **in terms of health for eyes <for eye health>.**
B.4.2 Underspecification	**3rd year students' errors:** *In summary, we live the greatest time **in the whole humanity lives <history of humanity>**. *everything is **our service in our century <convenient and at hand in this century>** **1st year students' errors:** *Sometimes stabilize your speed may **be beneficial rather than <more beneficial than reaching >**high speed. ***By looking this way <By looking at it this way>** it has good impact.

In some cases, it was observed that the participants from both groups regardless of their proficiency level or the year of study committed the same lexical errors. For example, they chose *addictive*, *open*, *untill, provide*, points, *result with/to* and *make easier (our) life* instead of addicted, turn on, until, enable, aspects, result in and make our life easier, respectively. The word "provide" itself seems to be problematic for both groups as they confused this word with the words like enable, allow, supply, assist, which results in semantic errors. These words seem to cause problems for the EFL learners even they have become more proficient.

4.2.2. Lexical errors, lexical features and overall quality of students' essays

Two raters graded the essays, using ESL Composition Profile (see Appendix-2). The overall scores and the vocabulary part scores were recorded for all the participants. The Lexical Frequency Profile (LFP), WordSmith Tools KeyWords software program and The Flesch–Kincaid Readability tests were also utilized to gain data to find out more

about the lexical features used by the participants and compare these features in two different groups in the study. The lexical density, the Flesch–Kincaid Readability ease, the overall writing scores and vocabulary part scores were all used to analyze the data, utilizing SPSS 22 statistics program so as to answer the following research questions 2 and 3:

2. Do the length of essays and their productive lexical level change according to the year of the study?
3. Do lexical features and errors relate to overall composition quality as expressed in its score?

4.2.2.1. The lexical errors categorized in different groups according to participants' writing performances

The argumentative essays written by the first- and third-year participants were graded and the overall score of the essays for each participant was determined and recorded and then the participants were put into different groups based on their writing scores to investigate the relationship between the lexical errors committed and the year of the study. The score scales to form the groups based on their overall writing scores and the number for the participants in each group can be seen in Table 4.6.

Table 4.6. *The groups of participants based on their writing scores*

Groups	Score Scale	1st YEAR no of participants	%	3rd YEAR no of participants	%
1	50-59	3	5,5	1	1,92
2	60-69	18	32,7	19	36,54
3	70-79	29	52,7	23	44,23
4	80-89	5	9,1	9	17,31
	TOTAL	**55**		**52**	

These groups were formed to figure out if the lexical errors made by the first- and third-year students differed in various score scales. The number of errors made by the first- and third-year participants in each category in the taxonomy was calculated for each group from 1 to 4 and recorded (for a detailed taxonomy with the errors made in each group formed based on writing score, see Appendix-10).

For the next step, the chi-square test was conducted to see whether there was an association between the number of errors made in those groups formed and the year the

participants were in. According to the results of 4X2 chi-square test, there was a significant association between the year the participants were in and the number of the errors made in the groups formed based on their writing scores (X^2 (3,N=1416)=31.420, p< .01).

Post hoc analyses were conducted given the statistically significant chi-square test. The result of the tests which were conducted using Bonferroni adjusted alpha levels of .00625 per test (.05/8) indicated that the year of study had a significant effect on the number of the errors committed by the participants. Specifically, there is a strong association between the first year and the number of errors made in the groups 1 (score scale 50-59) and 2 (score scale 60-99), which were lower score groups while the association for the third year was observed in the groups 3 (score scale 70-79) and 4 (score scale 80-89), which were higher score groups.

When the errors were divided into two main categories, namely formal and semantic errors, and the analyses were carried out, the 4X2 chi-square tests revealed significant relationships between the year and the formal errors (X^2 (3, N=472)=19,948, p> .01) as well as the year and the semantic errors (X^2 (3, N=944)=11,984, p> .01) made in different groups of participants.

Specifically, in the formal errors main category, there is a strong association between the first year and the frequency of errors made in the lower score groups, the groups 1 and 2, whereas the association for the third year was observed in the higher score groups, the groups 3 and 4. The same association is seen between the years and all the errors. Unlike the all errors and formal errors, the semantic errors category was found to have a significant association only between the third-year participants and the higher score groups, 3 and 4. Overall, the lexical errors made by the different years of students differed in different score scales as shown in Figure 4.1.

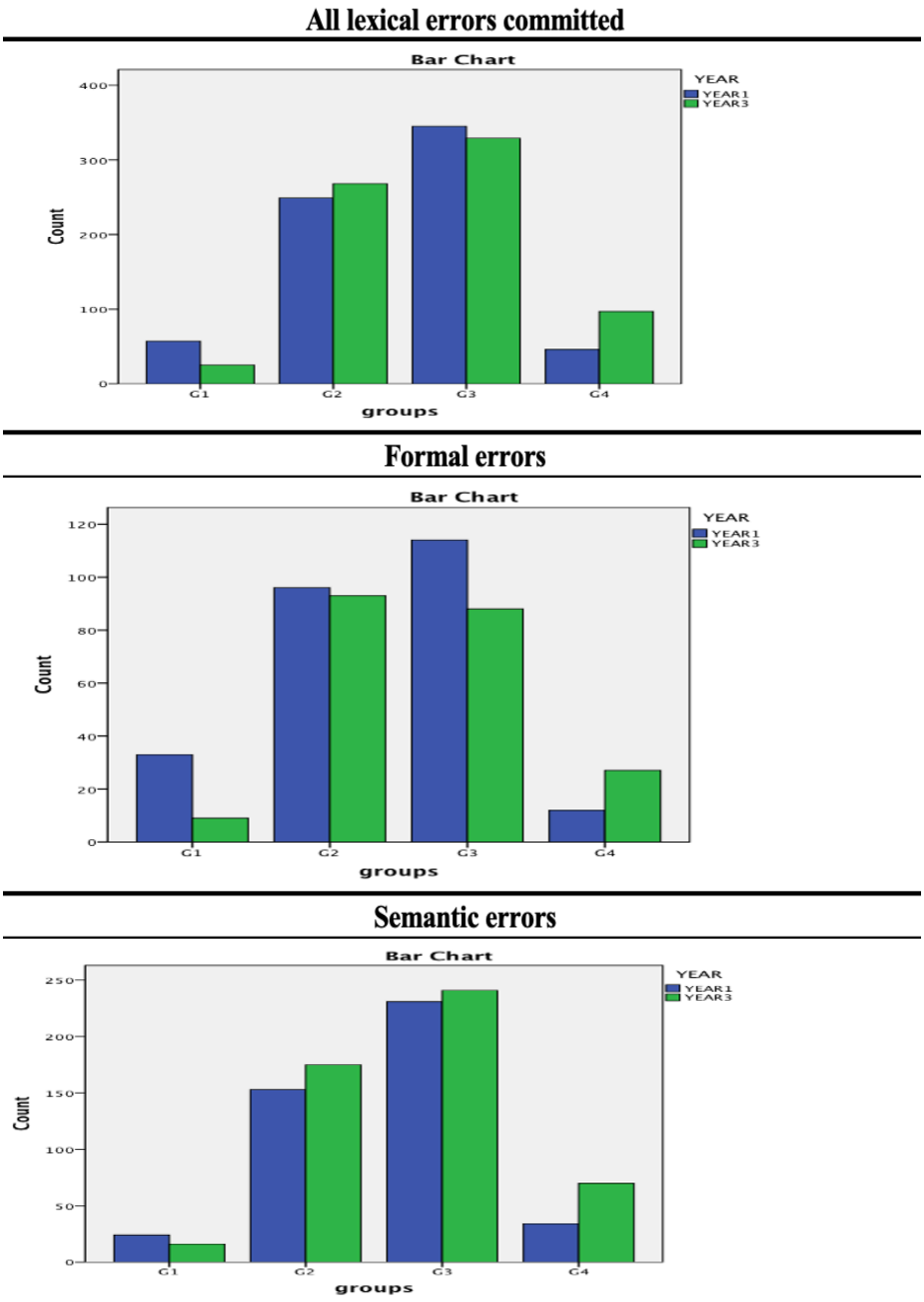

Figure. 4.1. *Lexical errors made by 1st and 3rd year participants in different groups*

4.2.2.2. The comparison of the length of essays and productive lexical level between the first and third year

To answer the second research question, the essays compiled from the first- and third-year students were analyzed using the Lexical Frequency Profile and the results yielded both the individuals' and groups' lexical density. The lexical density levels and other relevant lexical features like work count and word families for the first- and third-

year participants as well as the native speakers from ICLE are displayed in Table 4.7 below.

Table 4.7. *Lexical profile of the participants in the present study and the baseline group*

LEXICAL PROFILE	1ST YEAR	3RD YEAR	ICLE
Lexical density (content words/total)	0.52	0.53	0.51
Words in text (tokens):	17631	18853	16416
Different words (types)	2090	2125	2844
Type-token ratio	0.12	0.11	0.17
Tokens per type	8.44	8.87	5.77
Families	1002	990	1247
Tokens per family	16.56	17.9	12,27
Types per family	1.61	1.64	1.7

In terms of lexical diversity, there was not much difference between the groups, including baseline data taken from ICLE. As for the different words or types, baseline data differed from those of the first- and third-year participants'; however, those two groups did not differ much.

In addition to Lexical Frequency Profile, The Flesch-Kinkaid readability was also utilized to learn more about the lexical features and writing quality as presented in Tables 4.8 and 4.9.

Table 4.8. *The Flesch-Kinkaid readability scores and participants' text statistics*

Flesch-Kinkaid	1st year	3rd year	ICLE
Readability rating	A	B	B
Readability grade level	7,7	8	9,9
Readability scores	62.3	59,9	56,3
Text statistics			
Character count	81,588	77,678	76,407
Syllable count	27,248	25,874	25,788
Word Count	17,489	16,174	16,505
Unique Word Count	2,128	2,021	2,887
Sentence Count	1,394	1,243	915
Characters per Word	4,7	4,8	4,6
Syllables per Word	1,6	1,6	1,6
Words per Sentence	12,5	13	18

The readability scores calculated indicated that while the target readers of the first- and third-year participants was general public, the baseline data from ICLE could address

the readers who had completed high school, which means the quality of the pieces written by the first- and third-year English students was not at the same level as the native speakers and not good.

The same result could also be drawn from the readability score where the first-year participants with the highest readability score (i.e., 62.3) produced the easiest text to be read. This Flesch-Kinkaid readability score means that the first-year participants wrote a plain text which can easily be understood by the students aged between 13 and 15. However, the Flesch-Kinkaid readability score for the third-year participants'' essays was 59.9 which means the texts were fairly difficult to read. In this case, the participants in the years 1 and 3 differed in terms of the complexity of the texts they had produced. Nevertheless, the most complex text was produced by ICLE group.

As for the text statistics, the participants produced similar results except for sentence count where the first- and third-year participants did not differ from each other in the number of sentences and the number of the words used per sentence, whereas ICLE group used more words in a sentence, so they produced fewer sentences with more words than the first- and third-year students in the present study.

As can be seen in Table 4.9, with regard to overall text quality the first- and third-year participants produced similar results unlike the ones in the baseline data. However, when the text composition is considered, the percentages of the components used in the essays did not differ much in any groups in the current study.

Table 4.9. *The Flesch-Kinkaid readability text quality and composition results*

	1st year		**3rd year**		**ICLE**	
TEXT QUALITY	**No.**	**%**	**No.**	**%**	**No.**	**%**
Sentences > 30 syllables	179	13	200	16	369	40
Sentences > 20 syllables	575	41	554	45	603	66
words > 4 syllables	149	1	198	1	205	1
words > 12 letters	24	0	49	0	52	0
Passive voice count	185	1	168	1	204	1
Adverb count	1098	6	887	5	1009	6
Cliché count	2	0	1	0	0	0

Table 4.9. (Continued) *The Flesch-Kinkaid readability text quality and composition results*

TEXT COMPOSITION	1st year No.	%	3rd year No.	%	ICLE No.	%
Adjectives	1226	0.07	1242	0.08	1154	0.07
Adverbs	1207	0.07	1021	0.06	1123	0.07
Conjunctions	1596	0.09	1476	0.09	1408	0.09
Determiners	1832	0.1	1775	0.11	2244	0.14
Interjections	22	0	19	0	18	0
Nouns	5284	0.3	5060	0.31	4570	0.28
Prepositions	1853	0.11	1692	0.1	1976	0.12
Pronouns	1585	0.09	1315	0.08	994	0.06
Qualifiers	51	0	49	0	74	0
Verbs	2920	0.17	2614	0.16	3001	0.18
Unrecognized	0	0	1	0	1	0
Non-words	2	0	1	0	0	0

WordSmith Tools KeyWords software program was used to compare participant groups' essays in terms of the keywords which are the words occurring frequently when compared to a reference corpus. When the first- and third-year students' products were compared to the ones in ICLE, there were 32 keywords frequently used for each case where *internet*, *inventions*, *people, life, cell, devices,* and *phones* were among these keywords for both groups. These were topic specific words as the topic of the essay was the great inventions of the 20th century. However, the comparison between the first- and third-year participants' essays yielded no results, having only one meaningless word, *don* as a finding. In addition, when the number of the word classes they used, nouns and verbs are used much more than adjectives and adverbs.

4.2.3. Findings on the effect of lexical features and errors on overall composition quality

To answer the research question 3, it was necessary to investigate whether the number of the errors made by the participants and the lexical features, namely lexical density and Flesh-Kinkaid ease score predicted the overall writing quality as it was expressed in its score. That is why multiple regression analysis was carried out.

The multiple regression model with all three predictors produced $R^2 = .124$, $F(3, 103) = 4.866$, $p < .005$. As can be seen in Table 4.10, the frequency of errors had a significant negative regression weight, indicating students making more errors were

expected to have a lower total writing score. Flesh-Kinkaid ease score and Lexical density did not contribute to the multiple regression model.

Table 4.10. *Results from the multiple regression analyses*

MODEL	Unstandardized Coefficients		t	Sig	Rsquare Change	F Change	df1	df2
	B	**Std Error**			0,1	4,866	3	103
Number of errors	-0,323	0,102	-3,173	0,002				
Flesh-Kinkaid ease	-0,163	0,088	-1,842	0,068				
Lexical density	-3,854	19,497	0,198	0,844				

In addition, the number of errors was also found to explain the vocabulary part score. A simple linear regression was calculated to predict the vocabulary part score based on the number of the lexical errors that the participants made in the present study. A significant regression equation was found F(1.105)=31.78, p<001), with an R2 of .232. The participants' predicted vocabulary score is equal to 79.957 + -.541 (number of lexical errors) points when the number of lexical errors is measured in frequency. The participants' vocabulary scores increased by -.541 for each frequency of the lexical errors.

Furthermore, the year of study is often considered as an effective factor determining the number of errors, writing scores and quality of writing. Therefore, the following t-tests were carried out to examine whether the year of the study had an effect on the number of the errors made, total writing score, vocabulary part score, Flesh-Kinkaid ease score, and/or lexical density as presented in Table 4.11 below.

Table 4.11. *Independent sample t-test analyses.*

	Mean	**First year std Deviation**	**Mean**	**Third year std Deviation**	**t**	**df**	**sig**
Number of errors	12.67	6.34	6.68	6.68	-916	105	0.362
total writing score	71.56	6.79	7.27	7.27	0.801	105	0.425
voca part score	73.18	7.22	7.42	7.42	0.549	105	0.584
Fesh-Kinkaid ease	60.29	8.85	9.81	9.81	1492	105	.139
Lexical density	0.52	0.46	0.39	0.39	-521	105	0.603

None of the analyses yielded significant results, which means the first- and third-year participants did not differ with regard to the number of errors they made, the scores they got from the essays, and the lexical features.

Specifically, an independent sample t-test was conducted to investigate the effect of the year the participants were in on the number of errors. The findings produced non-significant results. To be more specific, there is not a statistically significant difference between the first (M=12.67; SD=6.34) and third year students (M=13.83; SD=6.68) with regard to the number of errors they made (t (105) = −.916, p=.362).

An independent samples t-test was carried out in order to find out whether the year the participants were in had an effect on the total scores of the essays. The findings indicated that there is no statistically significant difference between the first (M=71.56; SD=6.79) and third year students (M=72.65; SD= 7.27) in terms of writing scores (t(105)= −.801, p=.425). It can be concluded that the year of study was found to have no significant effect on writing scores in the present study.

An independent samples t-test was run to examine the relationship between the year of the study and the vocabulary part scores. The results yielded no significant difference between the first (M=73.18; SD=7.22) and third year students (M=72.40; SD=7.42) with regard to the score they got from vocabulary part (t(105)= .549, p=.584).

As for the Flesh-Kinkaid ease score, there is not a statistically significant difference between the Flesh-Kinkaid ease score and the year of the study t(105)=1.492, p=.139. It can be concluded that whether the participants were the first-year students (M=60.29; SD=8.85) or the third-year students (M=57.60; SD=9.81) did not have a significant effect on their Flesh-Kinkaid ease scores in the current study.

An independent samples t-test was run to examine if there was a relationship between the year the participants were in and the lexical density scores of their essays. The results yielded no significant difference between the first (M=0.52; SD=0.46) and third year students (M=0.53; SD=0.39) with regard to the lexical density score (t(105)= -.521, p=.603).

4.3. Discussion of the Findings

4.3.1. The types and frequency of the lexical errors in the first- and third-year Turkish ELT Department students' argumentative essays

In this part, the findings regarding the following research questions will be discussed.

1. Do the lexical errors found in the Turkish ELT Department students' argumentative essays differ in terms of

    a. types and frequency of lexical errors?

    b. the year of study?

4.3.1.1. Lexical error types emerged in two main categories: formal and semantic

In the current study, out of the 1416 lexical errors identified and categorized using Schmitt and Hemchua's (2006) lexical error taxonomy, the first- and third-year students were observed to make 697 and 719 errors, respectively. When two main categories of the lexical errors were compared, the findings of the study revealed that semantic errors were more frequent than formal errors in both groups and the participants' high proficiency level may explain this result. As the proficiency level increases, the errors in the formal errors category decrease (Takač, 2008, p. 15). This finding is incongruent with Duskova's (1969) study, which revealed that low level learners' lexical errors were form-based while more advanced learners' lexical errors were meaning-based. This result supports that fact that while learning a target language, attending to form comes before attending to meaning (Takač, 2008, p. 14), so the participants may not have difficulty in dealing with formal aspects of the words while finding the semantic aspects challenging.

In the current study, the number of semantic errors (66.67%) nearly doubled the formal errors (33.33%), which is in agreement with the Schmitt and Hemchua's (2006) study. This could be due to the fact that those participants may have dared to use new and more elaborate lexical items in their argumentative essays compiled in the current study. In addition, the participants may have made more semantic errors because semantic elements are a more challenging part of the target language than formal ones (Schmitt and Hemchua, 2006, p. 16), and taking risks to use more complex lexical items that are not fully acquired may have resulted in increased number of semantic errors.

Furthermore, as Swan (1997) suggested these errors may result from the fact that learners may misinterpret new lexical items, or they may understand them correctly but fail to comprehend all the characteristics of these words regarding semantics and structure at once (p. 168). This may result in misuse of the words or confusions between the vocabulary items like *provide* and *enable*; *think* and *imagine*; *damage* and *risk;* and *ignore* and *deny* as presented in the complied data for the current study. These examples clearly illustrate how Turkish learner's equivalence hypothesis failed while trying to use the target language.

Another plausible explanation why semantic errors category doubled the formal errors one is that participants may have difficulty in choosing the right meaning of polysemy or homonym as they are more familiar with one meaning which is not suitable or meaningful for the given context (Laufer, 1997). Also, language learners may be misled while learning polysemy, homonym, near synonyms, or similar expressions, and learners can choose improper words, supposing they can be used interchangeably, without being aware of the slight meaning differences between them (Martin, 1984, pp. 130-131). Applying Semantic Theory into teaching and providing learners with some certain semantic features like superordinate-hyponym, source-oriented, volitional-nonvolitional to enable them to distinguish between slightly different words can be a solution to prevent language learners from making semantic errors (Martin, 1984, p. 133).

Out of all lexical error categories investigated in the current study using lexical error taxonomy, the most frequent categories emerged were the semantic word selection, preposition partners, near synonyms, suffix type, calque, omission and underspecification categories. The most frequent three categories in the current study were preposition partners, near synonyms and calque types and they were also found as the most frequent errors in the previous studies (Schmitt and Hemchua, 2006; Gönülal, 2012). These three types of lexical errors emerged in these studies regardless of the participants' proficiency levels or native languages. It can be concluded that for non-native speakers of English it may be difficult to master prepositions or choose the appropriate word to express themselves accurately in the target language.

While the errors in misselection, borrowing, vowel-based and coinage types were committed most frequently by Turkish, beginner level students in Gönülal's (2012) study, these errors were not among the most frequent errors in the current study and Schmitt and

Hemchua's (2006) study where the participants were EFL students majoring in English language.

Instead, the suffix errors emerged as one of the most frequent lexical error types committed by the Thai and Turkish participants in both studies. It can be concluded that students' proficiency levels, exposure to the target language and /or their vocabulary size may have played a significant role in this result.

It is noteworthy to mention that neither the first nor the third-year students in the current study made errors in some categories, namely, false friends and inappropriate co-hyponym. This may result from the fact that the participating students may have not needed to use these words in their written productions compiled due to the topic of the argumentative essays, or they may have been more aware of the false friends due to their proficiency level, which results in no occurrences of the false-friends error type in the current study. Also, the prefix misselection and vowel or consonant-based types are among the least frequent ones. The rare occurrences of the prefix errors may be due to the salience of initials leading to recording the initial parts accurately in mental lexicon and enabling both native and nonnative speakers to remember the initial parts and choose the correct word (Laufer, 1991, pp. 326-327). Unlike prefixes, suffixes are final parts which are non-salient, so they are not properly stored in the mental lexicon. Consequently, language learners may experience lexical confusion while choosing between the words "considerate" and "considerable", whereas they may easily differentiate the meanings of "assume", "presume", and "consume" and use the correct one for intended meaning (Laufer, 1991, pp. 326-327).

4.3.1.2. Lexical error types emerged in the most frequent subcategories

4.3.1.2.1. The Semantic word selection type

As for the subcategories, one of the most frequent error types was semantic word selection where the participants failed to use correct words to collocate. The ELF students in other studies carried out to analyze lexical errors in L2 students' written productions (Schmitt and Hemchua, 2006; Ander and Yıldırım, 2010; Kang and Chang, 2014) were also observed to make semantic word selection errors. Schmitt and Hemchua's (2006) definition of collocation stresses that native speakers use words or phrases together with other words or phrases naturally and correctly. That is why being nonnative itself could be a possible reason why collocation errors occur. This indicates a requirement of

authenticity in the classroom which may be provided by means of authentic materials and corpus in which students are exposed to large and varied contexts in the target language, which may help them become more native-like while choosing right word sounding natural and correct.

The semantic word selection type is explained by James (1998) as we can say *crooked stick* but we cannot say **crooked year* due to the fact that "years cannot literally 'be' crooked" (p. 152). The semantic word selection errors made by Turkish EFL students majoring in ELT are listed below. As can be seen from the examples, the intended meaning cannot be conveyed due to the improper choice of the words.

3rd year students' errors:

a. *It **provides <allows>** us to be aware of current news in the fastest way.

b. *These apps **enable us <supply us with>** variety of information.

1st year students' errors:

c. *It **assists <provides>** a lot of benefits for us.

d. *People sent letters to each other and they had a **feedback** months later.

e. *Smartphones makes our life easier with its *multi-function* **aspect**.

The participants used similar words instead of the correct words to collate with the other words. They may tend to choose more familiar words to express their intended meaning without paying attention to collocations. Schmitt and Hemchua (2006) state that when a word collocates with another word, native speakers find these two words together natural, (p. 11), which means being non-native itself could be a plausible reason to make semantic word selection mistakes.

4.3.1.2.2. The preposition partners type

Another most frequent error type is preposition partners category. Nonnative speakers of English may find it very difficult to master preposition partners, considering that even native speakers of the target language make errors while using preposition partners (Schmitt and Hemchua, 2006, p. 19). Mastering preposition partners may be a real challenge for Turkish EFL students because in Turkish the prepositions are not a specific category except for time and place. Hence, Turkish EFL students make mistakes while using those prepositions especially the ones used with specific adjectives, nouns and verbs as the participants in the present study did. Furthermore, Swan (1997) explains this source of errors as crosslinguistic influence or mother tongue influence since when

the participants' mother tongue lacks a word category, the lexical items related to this category may become non-salient for the students of second language regardless of their proficiency level (pp. 162-163). In the current study, preposition category may be non-salient for Turkish students and this makes it difficult for these students to learn and /or notice these prepositions used with specific adjectives, nouns and verbs in the second language despite their high proficiency level.

The preposition partners category, one of the most frequent categories emerged in the current study, was added to the taxonomy by Schmitt and Hemchua (2006) when they felt that James' (1998) categories could not cover all the aspects of collocative meaning and stated that they defined the preposition partners as certain prepositions used with verbs and nouns, such as "*some channels in <on> television, surrounded with <by> nature*" (p. 12). In the current study, preposition partners errors were also categorized into three groups of errors: omission (think **<of>** me), addition (avoid **from** <Φ >) or substitution (be accused **to <of>**) as in the previous studies (Schmitt and Hemchua, 2006, p. 19; Kırkgöz, 2010, p. 4355; Gönülal, 2012, p. 73), seeing that the participants were observed to add unnecessary prepositions, omit necessary prepositions or misuse the prepositions in the data set. The prepositional partner errors detected in the current study are listed below:

3rd year students' errors:

OMISSION: * Also it **depends <on>** how to use that inventions.

ADDITION: * And they **impact on <on>**our lives.

SUBSTITUTION: **In addition this,* we also use our computers **in <at>**work.

*This **result to <in>** bad effect on our lives.

1st year students' errors:

OMISSION: *they can spend time *for* other things like **playing <with>** their toys.

ADDITION: *Moreover, we can **utilise from <from>** internet to get information that is…

* these inventions significantly **impacted on <on>**people's lives.

SUBSTITUTION: *To conclude, television, internet and phone were effective inventions **on<in>** people's lives.

*If even education is being given by internet we can not say this invention has negative effects **in < on >** our lives.

*The illness of past which is generally resulted **with <in>** death.

Both the first- and third-year students were observed to make errors in this category and some errors like *impact on*, *result with* are seen in both groups. The participants may

have difficulty in using the prepositions correctly or they may have failed to master this because in the Turkish language, prepositions are not a specific category except for time and place prepositions, so this category is not salient for Turkish students. Thus, the plausible reason for this error type was mother tongue influence and students can make preposition partner errors regardless of their L2 proficiency level due to non-salience as suggested by Swan (1997, pp. 162-163). This area seems to be problematic for the Turkish students as stated in the previous studies with participants at different levels (Kırkgöz, 2010; Gönülal, 2012; Erarslan and Hol, 2014; Atmaca, 2016).

4.3.1.2.3. The near synonym error type

The near synonym error type emerged as the third most frequent one in the current study. Register, divergent polysemy, cultural differences and phonological difficulty (Laufer, 1997; Schmitt and Hemchua, 2006; Gönülal, 2012) can be suggested as the reasons why EFL students make near synonym errors. Divergent polysemy causes problems for nonnative speakers of English especially when they think in their mother tongue and translate it to the target language while writing in the target language (Gönülal, 2012, p. 85). As Swan (1997) states, the lexical items in the first and second language may lack exact equivalents and the language students may pick up one equivalent but not the other equivalents (p. 168). Thus, these students may choose inappropriate equivalents for certain contexts, which results in lexical errors. Most students tend to use bilingual dictionaries to learn and study new vocabulary items, and it can mislead them. For example, both the words "provide" and "enable" means "sağlamak" in Turkish, so the students may take it for granted and use "provide" and "enable" interchangeably, which results in an error as in the sentence, "*It **provides** people to access videos, online games, etc.*"

In addition, when language students encounter with a word with multiple meanings, they insist on using the one they are more familiar with although that word is meaningless in a context (Laufer, 1997, p. 152). In Gönülal's (2012) study, it is stated that while choosing vocabulary items, nonnative speakers of English are inclined to prefer familiar words, the words that seem proper to them, or the easiest words to write due to the pronunciation or spelling of that word, which may result in making near synonym errors.

It is also likely for language students to commit near synonym errors due to the fact that they may be misled when they attempt to learn new target words which are synonyms

or have similar meanings and may think they can use them interchangeably without any meaning difference, which results in lexical errors (Martin, 1984, pp. 130-131). This explanation may indicate that these errors may be described as teaching-induced errors and they can be avoided if language teachers pay specific attention and provide students with specific information while teaching synonyms. For example, they can identify stylistic level of a new word for the students, teaching them whether the word is formal, informal, colloquial, etc. or they can draw students' attention to the grammatical patterns or collocations they are used in (Martin, 1984, p. 136).

Furthermore, nonnative speakers may misuse the words having the same meaning but different use as in the example, "have" and "there are", which results in near synonym errors. According to Swan (1997), this serious error occurs when the mother tongue and target language equivalents are not in the same part of speech category (p. 169). Considering these reasons, possible solutions to avoid those mistakes may involve teaching and making target language students aware of registers of the new words, teaching them the slight differences in meaning and use of the synonyms those students are exposed, and providing students with chunks, clear contexts or samples from corpus so as to help them learn the words with one meaning in their mother tongue but multiple meanings in their target language. As for the register, while writing an academic text, students are mostly seen unaware of formality and style of the words they have chosen. The following examples from the data set illustrate the near synonym errors committed by the participants in the current study:

3rd year students' errors:

*On the other hand, mobile phone is **significant <valuable>** to communicate

1st year students' errors:

*and they cannot **think <consider>** a life without Internet.

*It **provides <enables >**people to access videos, online games,

*Kids are obviously not **gonna <going to>** use these machines.

4.3.1.2.4. The suffix error type

In the present study, the suffix error type is among the most frequent errors and this type belongs to formal errors category. The plausible explanation for this type of errors may be lack of morphological knowledge or knowledge of words within a word family (Schmitt, 1998, p. 307; Schmitt and Hemchua, 2006, p. 14). Lack of morphological

knowledge accounts for the errors in word formation, especially when language students learn each word in a word family as a separate word entry and fail to retrieve correct word form even after choosing the right root (Jiang, 2000, p. 58). Schmitt (1998) reports that even advanced nonnative speakers doing their postgraduate studies in a university where the medium of instruction was English had problems and made errors while using some derivative forms and suggests that learning one word from a word family does not guarantee learning or knowing the others (p. 307). In addition, Schmitt (1998) also states that nouns and verbs are acquired earlier than adjectives and adverbs, and language students have difficulty of learning adjective and adverb forms through exposure without an explicit instruction (p. 307).

Furthermore, based on the evidence that suffix type errors occur more often than the prefix type errors, Laufer (1991) argues that L2 words are more likely to be stored as single units and language students find it confusing to choose the correct form of the final parts of words while initial parts of the words do not cause much trouble since they are recorded correctly in their lexicon. Hence, the students may be observed to commit errors while choosing the right word form not only within the same word class, such as "considerable" and "considerate" but also different word classes within the same word family like "globalization" and "globalized".

The suffix misselection type was one of the most frequent types of errors made. In this category, there were three types of mistakes observed in both groups: The participants in the current study failed to choose the correct suffix as in "**stressful** <**stressed**>" or "**technology** <**technological**>"; they chose unacceptable suffixes like ***fastly*** **<fast>** or ***creaters*** <**creators**>; or they chose the bare forms and did not add necessary suffix as in the examples, "**sculpt** <**sculpture**>" or **lux** <**luxurious**>. Most of the mistakes in this category observed when the participants failed to choose the right word from the same or different word class within the same word family as illustrated in the sentences below:

3rd year students' errors:

*People say that they are using phone but they aren't **addictive<addicted>**.

*Internet is big **dangerous<danger>** to people lives

1st year students' errors:

*Human are become **addictive <addicted>**to T.V.

*Automobile are more **significance <significant>** from a lot of.

4.3.1.2.5. Calque category

Following the suffix type errors, the participant language students were observed to make errors in the calque category where they translated what they wanted to say literally from Turkish, their mother tongue, in the current study. Therefore, it can be claimed that the source of error is interlingual transfer or mother tongue influence while producing L2 utterances (Gönülal, 2012, p. 86). The calque errors included the words or phrases which seemed to be written using English words; however, when native speakers of English read them, they did not make any sense to those people as in the example from the data of the current study, "...*USA finished the war as a winner*" instead of "...*USA won the war*". When students of a language have difficulty expressing themselves in that target language since they do not know the right words or expressions to use, they may come up with inappropriate or absurd language, which results in lexical errors. This occurs especially when the students try to transfer idiomatic expressions in their mother tongue into the target language (Swan, 1997, p. 178). The following sentences are examples of the calque error type in the data set:

3rd year students' errors:

*Today when we feel bored we can **open <turn on> our computers** and play games.

***The real communication doesn't resemble anything. <The real communication is much more than this>** (gestures, mimics, body language and so on.)

1st year students' errors:

* Thanks to Atom bomb The USA **finished the war as a winner <won the war>**.

*They would only like to **open <turn on>** TV and watch it.

4.3.1.2.6. Omission

Omission error type, a subcategory of distortions under formal errors, ranked sixth (5.9% of all errors) and seventh (4.9% of all errors) most frequent categories in the first- and third-year students' errors, respectively. The possible source of this type of error may be that the students focused more on the content, accurate sentence structure, and/or correct choice of vocabulary items rather than revising, proofreading or editing their written productions (Raimes, 1985, p. 247). This may have contributed to an increased number of omission type errors. This type errors may not be considered as important as other error types since these errors do not impede intended communication in written work and may only leave a bad impression on the raters or readers of written productions

(Schmitt and Hemchua, 2006, p. 16). The following sentences extracted from the data set to illustrate the omission error types made by the first- and third-year students:

3rd year students' errors:

*Tecnology <technology> has a huge role…

*They get everthing <everything> from internet and…

1st year students' errors:

*For example, after using electricty<electricity> lighting problems were solved.

*think about other things like enviroment <environment>

4.3.1.2.7. Underspecification

The final most frequent error type emerged in both first- and third-year students is underspecification error type where the students failed to produce clear and concise sentences to convey their messages across. The participants' poor choice of a word may result in this type of errors. For example, the participants in the current study produced such sentences:

3rd year students' errors:

*Because of the *describtion* of the most beautiful woman in terms of **physically**, some young people are affected.

* …covers all of the world like a **spider**.

1st year students' errors:

*The wasn't **distance via phone** anymore.

In the first sentence, the participant chose the word "physically"; however, the intended meaning should be "physical appearance". In this sentence, the poor word choice impedes the meaning and results in underspecification error. The second sentence lacks clarity and is too brief to get the message across, so it fits into this category. The intended meaning may be "like a spider web", though. The third sentence also lacks clarity and the intended meaning may be "distance barrier anymore thanks to phones"

All in all, the EFL teacher candidate participants were observed to make more semantic errors than the formal errors as expected due to their high proficiency levels. In formal errors main category, the participants in both groups committed formal misselection errors, including suffix type. In the semantic error category, the rank of the subcategories is the same as the one emerged in Schmitt and Hemchua's (2006) study carried out with L2 students. Collocation errors and confusion of sense relations error

types accounted for more than half of the errors identified in the current study (i.e., 54,81% for the first-year participants and 60,22% for the third-year students). This indicates that acquiring or mastering semantic features of the target language fully is challenging for L2 students as discussed earlier in this chapter, and it may have led to those errors in the compiled data.

4.3.2. Lexical errors, lexical features and overall quality of students' essays

In the current study, EFL teacher candidates' argumentative essays were analyzed to determine whether the length of essays and productive lexical level differ in the first- and third-year students' written productions and whether the lexical features and errors relate to overall composition quality.

Statistical analysis of the relationship between the lexical errors, lexical features and quality of writing, the number of the errors emerged in participants' argumentative essays proved to predict the overall writing score and vocabulary part score. This result is congruent with the previous studies (Engber, 1995; Llach, 2005, 2007, 2011) whose results yielded that lexical errors proved to be influential on the writing quality or the scores of the written productions. However, the current study does not seem to be congruent with the Gönülal's (2012) study where the lexical errors made by Turkish EFL students were identified using the same taxonomy as in the present study, but the effect of lexical errors on the writing scores of the compositions yielded no significant correlation between the errors and writing scores (p. 90). One of the possible reasons for this may be that the research instrument used to assess the writing quality was different in the studies mentioned. A holistic assessment was used in the Gönülal's (2012) study, whereas an analytic assessment, ESL Composition Profile, was used to assess the quality of writing in the present study. While the holistic instrument provides overall evaluation of the written product and student performance, it fails to give necessary information about the specific and different components or aspects of writing (Gönülal, 2012, p. 32; Llach, 2011, p. 56). Using the analytical instrument enables the researcher to determine the quality of the essays, providing information about participants' levels -from excellent to poor- as well as how well they performed in different writing components, such as content, organization, vocabulary, language use and mechanics (Llach, 2011, pp. 121-122). In Gönülal's (2012) study the scoring procedure was used to assess how well the participants did in the written task, whereas the present study makes use of the scoring

method to determine and provide information how well a participant performed in both overall writing and specific components of the writing, which enables the researcher to figure out how much lexical errors and features have affected the overall quality of the writing. As a result, the relationship between lexical errors and the overall quality of writing emerged as those errors had a negative impact on the overall quality of the essays written. In terms of lexical features and errors, while Gönülal's holistic writing rubric makes the rater focus on variety and appropriateness (2012, p. 114), ESL Composition Profile in the current study allow the rater to determine the participants' mastery level of vocabulary from excellent to poor and to focus on word range, choice, usage, level, form and register and related errors.

Another important difference between Gönülal's (2012) and the current study is the writing genre which could have an effect on the different results. Argumentative essay was used in the present study while descriptive composition was used in Gönülal's (2012) study.

As for their proficiency level, the participants in both groups were required to pass a proficiency exam and to be at or above English B2 level in the Common European Framework of Reference (CEFR) before starting to take courses in their department. Exposure to the target language in the department for three years for the third-year students was allegedly thought to contribute to the students' language development. Unlike the expectations, the first- and third-year language students did not seem to differ with respect to the number of the errors, the lexical features, and their vocabulary part and overall essay scores. The third-year students were expected to make less lexical errors, have more lexical density and readability ease, and obtain higher scores in the essays due to more exposure to the target language while they were studying in their departments; however, they did not differ from the first-year students in these aspects. The findings are not congruent with the results of Crossley and McNamara's (2012) study revealing that there was a more lexical diversity at higher proficiency levels as compared with lower proficiency levels. However, it is noteworthy to realize that lexical complexity development of L2 writers may not be fast or smooth and that could explain the reason why those students in the present study did not differ in terms of lexical complexity. The fact that the third-year students dealt with only major specific courses in ELT and they do not have compulsory or elective courses to improve their vocabulary (see Appendix.4) like reading and lexicology may also have led to this result.

5. CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

5.1. Summary

The aim of the present study was to identify and categorize the lexical errors made in the argumentative essays by the first- and third-year ELT Department students and then to investigate the relationship between the lexical errors, lexical features and the overall quality of writing. In this chapter, the conclusions, relevant pedagogical implications and recommendations were presented.

5.2. Conclusion

The results of analyses showed that both the first- and third-year students made more semantic errors than formal errors and the subcategories, namely semantic word selection, preposition partners and near synonyms were found to be the most frequent error types, whereas false friends, inappropriate co-hyponyms were the categories where there were no occurrences of errors in both groups of participants.

It was also found out in the current study that the lexical errors made by the first- and third-year participants differed in that the first-year participants made preposition partners, semantic word selection, suffix type and calque errors most frequently, whereas the rank of these errors were different in the third-year students. In addition to the difference in error categories, being in the first or third year of study was also found to have an effect of the number of the errors the participants made in different groups formed based on the writing scores. While the first-year students with lower writing scores made more errors, the third-year participants with higher scores were observed to make more lexical errors.

Furthermore, the results regarding the quality of the essays and the lexical features emerged in the essays did not yield much difference between the first- and third-year students.

When the relationship between the lexical errors, lexical features and overall quality of the essays was analyzed statistically, the number of errors was also found to explain the total writing score and vocabulary part score. However, the year the participants were in did not have a statistically significant effect on the number of errors made, total writing score, vocabulary part score, readability ease and lexical density.

5.3. Pedagogical Implications and Recommendations

It is hoped that the results of the study will shed light into L2 writing in Turkish EFL teaching and learning context and it will probably give insights into understanding of ELT students' writing competencies and contribute to writing course design.

There seems to be a need for a well-designed vocabulary syllabus. In this syllabus, it is crucial to integrate implicit and explicit teaching and learning activities, including vocabulary teaching activities, such as corpus-based activities, word formation exercises to analyze meaningful word parts, creating mental images, guessing meaning from context, reading based vocabulary activities, error correction and so on to help students' lexical development. It should be done especially for higher proficiency level students to encourage them not use the avoidance strategy as suggested by Takač (2008, p. 23).

The lexical errors made by the participants in the current study indicates that they need more exposure to the target language so that they can cope with the challenges resulting from incomplete mastery of semantic features. However, mere exposure to the target language vocabulary is not enough (Ellis, 1995, p. 10), and language students' need to be provided with multiple exposures to target words should be met, considering the fact that these students should be exposed to a word six to twenty times so as to remember that word (Zahar, Cobb and Spada, 2001). Therefore, involving corpus-based activities in vocabulary instruction is inevitable. As suggested by Gilquin and Granger (2010), using corpus in language classes may benefit language students in numerous ways. For example, as the corpus is comprised of authentic, rich and various contexts for lexical items to be learned or acquired, using corpus empowers students and contributes to vocabulary development. In corpus-driven activities, language students may be asked to focus on certain language patterns, the associations between forms and meanings, similarities and differences between target and native languages in the materials designed based on a corpus and this kind of an activity may help students to make errors. McEnery and Xiao (2011) suggest that corpus can be used in the language learning to help students to understand the complexities and nuances of natural language as presented in authentic examples and provide a great source for language students to gain collocational knowledge (pp. 367-368). Thus, it may contribute to raising language students' awareness of target language patterns, which is crucial as the participants in the current study made most of the errors in collocational categories, and such instruction may benefit them so as to become more native like.

In addition to this, Mukherjee and Rohrbach (2006) suggest that compiling local learner corpus and using it in language classroom to identify and correct errors benefit the language students (p. 225). However, involving corpus requires language teachers or teacher candidates to be to equipped with necessary knowledge and skills regarding what to teach with corpora and how to teach it and how to make use of it to design lessons and activities (McEnery and Xiao, 2011, p. 369). Hence, it can be suggested that ELT candidate teachers must be provided with a major-specific course to be trained in compiling, developing and/or using corpus in-service teacher training programs as also suggested by Leńko-Szymańska (2017). In addition to this, some teacher development or training activities may also be offered to the teachers currently working in different institutions to benefit from corpus based-instruction in their profession.

Students should also be guided to use sophisticated metacognitive knowledge to choose cognitive learning strategies appropriate to the task of vocabulary acquisition. As Livingstone (1997) exemplify it in a sentence "I know that I (person variable) have difficulty with word problems (task variable), so I will answer the computational problems first and save the word problems for last (strategy variable)." (p. 4), metacognitive knowledge includes knowledge about person, task and strategy, and knowing all these can enable language students to know their strengths and weaknesses while learning new vocabulary items and approach the problematic parts, employing proper metacognitive and/or cognitive strategies like making associations, activating prior knowledge, inferencing, or comparing and contrasting to learn and retain information effectively and efficiently. Then the learner can employ cognitive strategies. Ellis (1997) argues that using sophisticated metacognitive strategies enables language students to excel as they employ cognitive strategies so as to infer the meaning of the words and associate them with other words, concepts as well as imagery representations (p. 139). In addition, Ellis suggests that acquiring meaning requires explicit learning process (Ellis, 1997, p. 139).

For better vocabulary learning and longer retention, language learners should be equipped with necessary skills and strategies, such as inferring the meanings of words, building associations between the target and native language vocabulary items by means of semantic or imagery mediation, or employing keyword-semantic strategy in which language learners are provided with a new word, its definition, a keyword, interactive

image making practice, two sample sentences and a question to answer about that word (Ellis, 1997, p. 138).

While learning new lexical items, learners are supposed to be provided with exposure to the target language and receive explicit instruction. However, metalinguistic demands should not be ignored during language teaching and learning process as learning vocabulary requires language learners to use metalinguistic abilities (Nagy, 2007, p. 56). This demand may not be limited to language learners' age or their levels. Nagy (2007) states the more complex the language the students are exposed to, the more metalinguistic demands there are (Nagy, 2007, p. 58). He also suggests that it is crucial that metalinguistic demands of vocabulary instruction should match language learners' metalinguistic abilities. That is why any vocabulary instruction should be devised considering this point so as to provide language learners metalinguistic support and contribute to their vocabulary growth.

In addition to this, the lexical errors identified and categorized in the current study may contribute to increasing language teachers' and teacher candidates' awareness in terms of the problematic areas in teaching and learning vocabulary. This awareness is believed to contribute to the understanding of the problems, difficulties, and challenges that non-native speakers of English language are likely to face in the teaching and learning process, which may result in adjusting curriculum, building instruction, and/or developing materials accordingly and employing systematic and continuous approach in teaching, assessing and reteaching lexical items. In other words, English language teachers may have an opportunity to study the errors made in this study by the Turkish students learning English as a Foreign Language and these teachers may prepare suitable materials or increase their students' awareness regarding those errors. Therefore, the language teachers should be well-informed about the issues regarding the factors that affect word learnability, such as pronounceability, orthography, length, morphology, synformy, idiomaticity, multiple meaning, and so on. For example, while teaching the word "conceal", they can pay specific attention to the fact that learners do not confuse this word "conceal" with the word "cancel" due to synformy. It is easy for L2 learners to confuse those words which seem similar or sound similar (Laufer, 1997, p. 147). Given that, language teachers may feel the need to prepare drills, exercises or tasks to distinguish between synforms like considerable/considerate, economic/economical, affect/effect, quite/quiet, price/prize, and so on. In addition, it is important to make the L2 learners

notice the similarities and differences between their mother tongue and the target language so as to help them choose useful learning strategies and become more aware of the "nature and limits of crosslinguistic correspondences" (Swan, 1997, p. 178).

In such a program it is also necessary to help learners make associations between words, involving paradigmatic and syntagmatic approaches. By means of these approaches, students' awareness in terms of restrictions of a lexical item could be raised, and they could be informed about semantic and collocational restrictions, which may result in less lexical errors (Takač, 2008, p. 7).

There are some simple classroom activities to be designed so as to avoid the errors the ELF learners make. For instance, the students can be encouraged to use monolingual dictionaries. It is also necessary to help students understand the word parts, especially derivational suffixes should be stressed while teaching vocabulary items. Another suggestion to help learners to focus on the semantic aspects of a word can be including more guessing vocabulary from context activities. Also, synonyms should be taught considering the difficulties causing the language learners to commit errors, highlighting the differences with respect to register, use and polysemy.

Lastly, some elective courses such as advanced academic writing course and /or reading course, lexicology, advanced lexicology can be given. Such courses could help students expand their vocabulary knowledge.

5.4. Suggestions for Further Research

As for the recommendations, based on the findings of the present study, viable studies in the future may focus on the following areas:

1. To shed light on the sources of the participants' lexical errors, one-to-one interviews could be held. In the interviews, students may be shown their errors and asked for the underlying reasons for them. In addition to this, whether the participants have attended the preparatory class or not may be another variable to gain an in-depth understanding of the sources of errors.

2. To better understand vocabulary growth and design more effective vocabulary instruction, it may be suggested that a further study to find out any mismatches between what vocabulary instruction requires language learners metalinguistically and what metalinguistic abilities the learners have at different levels of instruction can be conducted.

3. A further study may be carried out so as to determine to what extent both the syntactical and lexical errors contribute to overall writing quality.

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APPENDICES

APPENDIX-1. Writing criteria for AUSFL (Anadolu University school of Foreign Languages

COMPONENTS

Task Achievement

- Effectively addresses the topic and the task, and is well developed using a wide range of details (explanations and/or exemplifications) 6
- Addresses the topic and task well, and is developed, using appropriate and sufficient details 5
- Moderately addresses the topic and task enough to be considered as a developed response, yet some more details could be included 4
- Addresses the topic and task with limited details and some points are considered irrelevant 3
- Partially addresses the topic and task with inadequate details and many points are considered irrelevant 2
- Barely addresses the topic and task and/or the response is inappropriate and almost irrelevant 1

Writing Fluency

- Effective organization of ideas; logical sequencing; good control of linking devices 4
- Moderate success in the organization of ideas and control of linking devices 3
- Limited success in the organization of ideas and control of linking devices 2
- Lack of organization; illogical sequencing; no control of linking devices 1

Grammatical Competence

- Appropriate and accurate use of language forms with few inaccuracies, yet the meaning is fully clear 4
- Appropriate and accurate use of language forms with some inaccuracies which do not distort the meaning 3
- Partly appropriate use of language forms with a significant number of inaccuracies and the meaning is sometimes unclear 2
- The frequent inaccurate use of language forms makes the meaning mostly unclear 1

Lexical Competence 4

- Appropriate and accurate use of vocabulary with few inaccuracies (word choice/word forms/misuse), yet the meaning is fully clear
- Appropriate and accurate use of vocabulary with some inaccuracies which do not distort the meaning 3
- Partly appropriate use of vocabulary with a significant number of inaccuracies and the meaning is sometimes unclear 2
- The frequent inaccurate use of vocabulary makes the meaning mostly unclear

Mechanics

- Good control of spelling, punctuation, and/or capitalization with a few errors 2
- Some errors in spelling, punctuation, and/or capitalization which sometimes distort the meaning 1

APPENDIX-2. ESL Composition Profile

	SCORE	LEVEL	CRITERIA
CONTENT	30-27	**EXCELLENT TO VERY GOOD**	knowledgeable. substantive. thorough development of thesis. relevant to assigned topic
	26-22	**GOOD TO AVERAGE**	some knowledge of subject. adequate range. Limited development of thesis. mostly relevant to topic, but lacks detail
	21-17	**FAIR TO POOR**	limited knowledge of subject. Little substance. Inadequate development of topic
	16-13	**VERY POOR**	does not show knowledge of subject. non-substantive. not pertinent. OR not enough to evaluate
ORGANIZATION	20-18	**EXCELLENT TO VERY GOOD**	fluent expression. ideas clearly stated/ supported. succinct. well-organized. logical sequencing. Cohesive
	17-14	**GOOD TO AVERAGE**	somewhat choppy. loosely organized but main ideas stand out. limited support. logical but incomplete sequencing
	13-10	**FAIR TO POOR**	non-fluent. ideas confused or disconnected. lacks logical sequencing and development
	9-7	**VERY POOR**	does not communicate. no organization. OR not enough to evaluate
VOCABULARY	20-18	**EXCELLENT TO VERY GOOD**	sophisticated range. effective word/idiom choice and usage. word form mastery. appropriate register
	17-14	**GOOD TO AVERAGE**	adequate range. occasional errors of word/idiom form, choice, usage but meaning not obscured
	13-10	**FAIR TO POOR**	limited range. frequent errors of word/idiom form, choice, usage. meaning confused or obscured
	9-7	**VERY POOR**	essentially translation. Little knowledge of English vocabulary, idioms, word form. OR not enough to evaluate
LANGUAGE USE	25-22	**EXCELLENT TO VERY GOOD**	effective complex constructions. few errors of agreement, tense, number, word order/function, articles, pronouns, prepositions
	21-18	**GOODTO AVERAGE**	effective but simple constructions. minor problems in • meaning confused or obscured
	10-5	**VERY POOR**	virtually no mastery of sentence construction rules. dominated by errors. does not communicate. OR not enough to evaluate
MECHANICS	5	**EXCELLENT T0 VERY GOOD**	demonstrates mastery of conventions. few errors of spelling, punctuation, capitalization, paragraphing
	4	**GOOD TO AVERAGE**	occasional errors of spelling, punctuation, capitalization paragraphing but meaning not obscured
	3	**FAIR TO POOR**	frequent errors of spelling, punctuation, capitalization, paragraphing. Poor handwriting. meaning confused or obscured
	2	**VERY POOR**	no mastery of conventions. dominated by errors of spelling, punctuation, capitalization, paragraphing. handwriting illegible. OR not enough to evaluate

TOTAL SCORE **READER** **COMMENTS**

APPENDIX-3. Lexical Error Taxonomy developed by Hemchua and Schmitt.

A. FORMAL ERRORS

A.1. Formal misselection - Synforms share some phoneme /graphemes. The 4 main types of synforms a:

A.1.1. Suffix type Suffix errors consist of the formal misselection of words consisting of synforms:

a. the same word class with similar form- similarity of forms within the same class. (*considerable/considerate; competition*/*competitiveness)*

for example: *There is a lot of* ***competition <competitiveness***>

b. the wrong use of a particular word class; using words with the right word classes or derivative forms (for example, noun, verb, adjective and adverb)

for example: *It is said that today our world is* ***globalisation <globalised***>

Bangkok is ***pollution <polluted****.*

The people who live in the country are ***honesty <honest*** >

A.1.2. The prefix type. They have the same root but different prefixes (**for example**, *reserve/preserve, consumption/resumption/assumption*).

A.1.3. The vowel-based type - the words are similar in pronunciation and form, to some extent, they are totally different in meaning. The influence of the mother language is not evident. (**for example**, *seat /set, manual /menial*).

A.1.4. The consonant-based type (**for example**, *save/safe, three/tree*).

A.1.5. False friends caused by divergent polysemy, partial semantic overlap, or loan words that have been taken from English words and which sometimes have meaning overlaps (**for example,** Thai 'bank' = bank/banknote). Occasionally, the meanings are divergent (for example, Thai 'serious' = stressed).

A.2. Misformations - These are words that do not exist in the L2. The source of errors is from the learner's mother tongue. They are, therefore, called 'interlingual misformation errors'

A.2.1. Borrowing (L1 words) L1 words are used in the target language without any change (**for example**, *I shoot him with gun in kopf <In German kopf = head>*).*****

A.2.2. Coinage Inventing a word from L1(**for example**, *Smoking can be very nocive to health <In Portuguese nocivo = harmful>*).*****

A.2.1. Calque (translation from L1) Translation of a word or a phrase from L1 words (**for example**, *We have to find a car to bring us go to <bring us to> the hospital*).

A.3. Distortions - These words also do not exist in the L2. However, the errors are the result of misapplication of the target language without L1 interference or misspelling.

A.3.1. Omission (for **example**, *intresting <int**e**resting>*).

A.3.2. Overinclusion (for **example**, *din**n**ing room <dining room>*).*****

A.3.3. Misselection (for **example**, *deli**touse** <deli**cious**>*).*****

A.3.4. Misordering (for **example**, *litt**el** <litt**le**>*).*****

A.3.5. Blending (for **example**, *travell <travel + travelled>*).

APPENDIX-3. (Continued) Lexical Error Taxonomy developed by Hemchua and Schmitt

B. SEMANTIC ERRORS

B.1. Confusion of sense relations

B.1.1. Using a superonym for a hyponym. A more general term is used where a specific one is needed. Therefore, the meaning is underspecified

(**for example**, *We have modern equipment <appliances> in our house*).

B.1.2. Using a hyponym for a superonym. An overly specific term is used

(**for example**, *The colonels <officers> live in the castle*).*

B.1.3. Using inappropriate co-hyponyms (**for example**, *I think the city has good communication <transportation/public transport > such as a lot of buses*).

B.1.4. Using a wrong near synonym

(**for example**, *a regretful<penitent/contrite> criminal or sinner*).*

1 The use of informal words instead of formal ones.

For example: *We can communicate with people and get <gain/acquire > knowledge from other countries by using computers*.* '**To get knowledge'** is not entirely incorrect, but the use of 'get' seems more appropriate in informal writing.

2. The intended meaning was not expressed by the synonym used. For example: *You will **get up <wake up>** in the morning because of the sound of birds*.*The intended meaning of the underlined words in the context was 'to become awake after sleeping' not 'to leave the bed'. Therefore, 'wake up' was required.

** For me, I can **live <stay >** in the country only for relaxing because this life style is very boring*.

**We'll have good chances to get a good work <job>*

3. Two words were close in meaning but were different in usage.

For example: *Because in the city **has** <**there are** > many hospitals*.

To refer to something for the first time and to refer to a quantity as 'there are' is common usage. The student, in fact, did not mean 'to own or possess something'. Thus 'has' was used erroneously in this context.

B.2. Collocation errors

B.2.1. Semantically determined word selection - We can say "crooked stick" but is is not right to say "crooked years" because years cannot literally be crooked.

(**for example**, *The city is grown <developed >*).

B.2.2. Statistically weighted preferences

(**for example,** *An army has suffered big losses <heavy losses is preferred >*).*

B.2.3. Arbitrary combinations and irreversible binomials (**e.g.,** , *hike-hitch <hitch-hike>*).

B.2.4. Preposition partners

OMMISSION: think <about> it;

ADDITION: to face **up to** <face **Φ**> the traffic congestion;

SUBSTITUTION: result **of** <**from**> having)

APPENDIX-3. (Continued) Lexical Error Taxonomy developed by Hemchua and Schmitt

B.3. Connotative meaning occurs when a word seems to add something new and also covers conceptual meaning. (for example, *There are **too** <many > other advantages of living in the city*)

*You will wake up in the morning because of **voice's bird** <the sound of bird/bird's song>.*

'Voice's bird' was assigned to 'connotative meaning error' because the student used 'voice' rather than 'noise', which indicates that she wanted to suggest more than just a sound.

OR We could also have categorized this error into 'near synonyms', since 'voice' and 'noise' can be used interchangeably in some contexts.

B.4. Stylistic errors

B.4.1. Verbosity (e.g., I informed my girlfriend of the party through the medium of telephone)

B.4.2. Underspecification – L2 learners sometimes do not convey sufficient meaning in their writing. That is, the sentence is too brief and the meaning is unclear. This underspecification can also be due to poor choice of words. *Although cars in the country are lower <Although there are fewer cars in the country>OR <Although car numbers in the country are lower>*

APPENDIX-4. 2013-2018 ESOGU ELT Department - Undergraduate Program
(Only the courses delivered in English were listed below.)

1ST YEAR

FALL	**SPRING**
Contextual Grammar I*	**Contextual Grammar II***
**Advanced Reading and Writing I ** **	**Advanced Reading and Writing II ** **
Listening and Pronunciation I	Listening and Pronunciation II
Oral Communication I	Oral Communication II
	Lexical Competence *

2ND YEAR

FALL	**SPRING**
English Literature I	English Literature II
Linguistics I	Linguistics II
Approaches to English Language Teaching I	Approaches to ELT II
Contrastive Turkish and English	Language Acquisition
	ELT Methodology I

3RD YEAR

FALL	**SPRING**
Teaching English to Young Learners I	Teaching English to Young Learners II
ELT Methodology II	Turkish-English Translation
Teaching Language Skills I	Teaching Language Skills II
Literature and Language Teaching I	Literature and Language Teaching II
English-Turkish Translation	

4TH YEAR

FALL	**SPRING**
Language Teaching Materials Adaptation and Development	English Language Testing and Evaluation

ELECTIVE COURSES OFFERED	**ECTS**
Short Story Analysis and Teaching	4
Novel Analysis and Teaching	4
ICT Skills for English Teacher	4
Advanced Translation Techniques	4
Translation Studies in ELT	4
Academic Language and Literacy in English	5
Teaching English to Older Learners	4
Mythology	4
Student Motivation	4

* Since 2018-2019 Academic year, Contextual Grammar I and II along with Lexical Competency courses haven't been offered in the program.

APPENDIX-5. Consent form

ARAŞTIRMA GÖNÜLLÜ KATILIM FORMU

Bu çalışma, "Türk İngilizce Öğretmen adaylarının kompozisyonlarındaki kelime hatalarının sıklığı ve türü" başlıklı bir araştırma çalışması olup kompozisyonlardaki sözcüksel hataları belirleme ve genel olarak yazma yetisinin niteliğini ile bunların arasındaki ilişkiyi betimleme amacını taşımaktadır. Çalışma, Nadire ARIKAN tarafından yürütülmektedir.

Bu çalışmaya katılımınız gönüllülük esasına dayanmaktadır. Çalışmanın amacı doğrultusunda, sizlerin belirli bir konu üzerine yazdığınız kompozisyonlar kullanılarak veriler toplanacaktır. İsminizi yazmak ya da kimliğinizi açığa çıkaracak bir bilgi vermek zorunda değilsiniz/ araştırmada katılımcıların isimleri gizli tutulacaktır. Araştırma kapsamında toplanan veriler, sadece bilimsel amaçlar doğrultusunda kullanılacak, araştırmanın amacı dışında ya da bir başka araştırmada kullanılmayacak ve gerekmesi halinde, sizin (yazılı) izniniz olmadan başkalarıyla paylaşılmayacaktır. Veri toplama sürecinde/süreçlerinde size rahatsızlık verebilecek herhangi bir soru/talep olmayacaktır. Yine de katılımınız sırasında herhangi bir sebepten rahatsızlık hissederseniz çalışmadan istediğiniz zamanda ayrılabileceksiniz. Çalışmadan ayrılmanız durumunda sizden toplanan veriler çalışmadan çıkarılacak ve imha edilecektir.

Gönüllü katılım formunu okumak ve değerlendirmek üzere ayırdığınız zaman için teşekkür ederim.

Araştırmacı Adı : Okutman Nadire Arıkan
Adres : ESOGU Yabancı Diller Blm
İş Tel : 0222 2393750 - 6166
Cep Tel :0537 287 40 33

Bu çalışmaya tamamen kendi rızamla, istediğim takdirde çalışmadan ayrılabileceğimi bilerek verdiğim bilgilerin bilimsel amaçlarla kullanılmasını kabul ediyorum.

APPENDIX-6. Ethics Committee approval

Kayıt Tarihi: 15.02.2017 | Protokol No: 20025

ANADOLU ÜNİVERSİTESİ ETİK KURULU KARARI

ÇALIŞMANIN TÜRÜ:	Doktora Tez Çalışması
KONU:	Eğitim Bilimleri
BAŞLIK:	The Frequency and Type of Lexical Errors in the Argumentative Essays of Turkish EFL Teacher Candidates Türk İngilizce Öğretmen Adaylarının Kompozisyonlarındaki Kelime Hatalarının Sıklığı ve Türü
~~PROJE~~/TEZ YÜRÜTÜCÜSÜ:	Prof. Dr. Gül DURMUŞOĞLU KÖSE
TEZ YAZARI:	Nadire ARIKAN
ALT KOMİSYON GÖRÜŞÜ:	-
KARAR:	Olumlu

ETİK KURUL ÜYELERİ — **İMZA/ TARİH** 23/02.2017

Prof. Dr. Aydın AYBAR
Rektör Yardımcısı / Etik Kurul Başkanı

Prof. Dr. Hayrettin TÜRK
Fen Bil.(Fen Fak.)

Prof. Dr. Yusuf ÖZTÜRK
Sağlık Bil.(Ecz. Fak.)

Prof. Dr. Esra CEYHAN
Eğitim Bil. (Eğitim Bil. Ens.)

Prof. Dr. Bülent GÜNSOY
Sos. Bil.(İkt. Fak.)

Prof. Dr. Münevver ÇAKI
Güz. San. (Güz. San. Fak.)

APPENDIX-7. Sample Argumentative Essays from the Data set.
(The essays were marked using ESL Composition Profile prior to detection and classification of the lexical errors.)

A paper with a low writing score - written by a 1st year student:

20th CENTURY

The humanity is **living best times <B2.5 having the best time>** of their lives. As all of us know our times is **calling<B3 known as > technology <A1.1 technological >** era. Today we are use machines for our all works from cooking coffee to the cleaning house. Every part of our day full of **invents<A1.1 inventions>**, different kinds of machines.

There are lots of *invents* about medicine **These times <A3.2 Nowadays>** the doctors have such a great opportunities in terms of their using tools and medicines. The illness of past which is generally resulted **with <B2.4 in >** death, today treated easily.so these *invents* makes our lives longer but at the same time it **gives damages <A4.1 damages >** us too much like radiation.

It is well known that cars also **take <A2.3 hold >** such a great place in human life. **The earlier of 20th century <B2.5 at the beginning of the 20th century >** people use horses for **transportion <A3.1 transportation >** but **the continue of the years <B2.5 over the years >** cars take places of horses. It is more comfortable and fast. So its using **fast spread<B2.3 spread fast >** to the world. **Except from <B1.4 besides>** horse, **bicyle <A3.1 bicycle >** was used for close place for **transportin <A3.1 transportation >** but when cars come into its **using <A1.1 use >** was decreased. People get used to going somewhere by car so they didn't *use their feets* to go **somewher<A3.1 somewhere >**, it make them lazy and unhealthy**.**

The other **diffence <A3.3 difference>** is this **centruy <A3.4 century>** people started to live more **comfortable <A1.1 comfortably >** because of wars and starvations was decreased too much. When people can meet their daily needs they started to think about other things like **enviroment** <**A3.1 environment** >, philosophy. In other words, their first need is of course **meal <B2.5 food>** and shelter after they can supply these for themselve they can talk about abstract things.

To sum up in 20th century people make great *invents* different **discovers<A1.1 discoveries>**. It make their lives better, comfortable, **lux<A1.1 luxurious >**. But it has some negative things also The Machines started to taking places of humans someones really feel *disturbed* **from <B2.4 by>** these situations but other think that these *invents* help us **too much<B3 so much >**. These era *is calling technology* era because of its discoveries and *invents***.**

ESL Composition Profile components		**1ST Rater (Native Speaker of English)**	**2ND Rater (Non-native Speaker of English)**
Content	(30 points total)	13	13
Organization	(20 points total)	7	15
Vocabulary	**(20 points total)**	**10**	**10**
Language use.	(25 points total)	15	11
Mechanics	(5 points total)	4	3
TOTAL SCORE	**(100 points total)**	**49**	**52**

APPENDIX-7. (Continued) Sample Argumentative Essays from the Data set.

A paper with a high writing score – written by a 3rd year student:

When the Industrial Revolution started in Europe, no one could've **thought <*B2.1 realized>** how the **industrualism <*A3.3 ~~B3.3~~ industrialism>** can change our lives in so many ways. Towards the late 19th century, what people need changed, because there were almost new inventions everyday. In the 20thcentury, scientists invented new things to help people in their daily lives. Long, uncomfortable trips with horse carriages became obsolete, because cars were invented. Telegrams also became obsolete, because almost everyone had a telephone. So, the inventions and discoveries of the 20th century changed people's lives for better, and best examples in this field are communication, transportation and medicine.

For starters <B1.4 Firstly>, before the invention of telephone, communication between distances was really hard, and troublesome. People were using telegrams but **acces <A3.1 access >**to **< B2.4 access ~~to~~ >** these telegrams was limited, because there weren't telegrams everywhere. For example, if a person who is living in a village away from the city, would have no telegrams near his place and would have to communicate with his loved one by using letters. However, using letters was almost harder than using telegrams, because delivering letters takes much more time then telegrams. Therefore, in terms of communication, the invention of telephone brought people closer, and aided their daily lives.

Secondly, transportation became so easy with the invention of cars and airplanes. Without the cars like I stated earlier, people travelled by horse **cariages<B3.1 carriages>**. These trips were slow, uncomfortable and really tiring. But, nowadays, almost everyone have the cars and the ones that don't have a car, can always use public transportation. However, when travelling **far more distances <B4.2 >** wasn't enough, mankind established airlines and started to fly wherever they want for a reasonable price. So, once again, these inventions helped people tremendously.

And finally, the developments in the field of medicine. Not so long ago, in the early 20th century, life expectancy of people was about 50 years old. But, today, average life expectancy in the world is 65 years old, and in more developed countries, such as Japan, life expectancy can go up to almost 90 years. The reason of their gap is, of course, inventions and discoveries in the field of medicine. In the 19th century, if a person had a heart attack, he would probably die. But today, we have the technology to stop this. Doctors can perform a by-pass surgery, or put a stent in your veins in heart, or a pacemaker, if he the heart can't beat regularly, As you can see, all of this possible with the inventions that happened in the 20th century.

To sum up, while some people would say the technology is the reason of corruption in society, ı can certainly say, they are wrong. Without the developments of 20th century, you may not be here. Thanks to the discoveries and inventions in communication, transportation and medicine, we are here. And all people need this inventions. If this these discoveries and inventions had never happened, **consequences <B1.4 the outcome>** would have been dire. These developments made for people, by people. So to use and cherish them is our responsibility as a person.

ESL Composition Profile components		**1ST Rater (Native Speaker of English)**	**2ND Rater (Non-native Speaker of English)**
Content	(30 points total)	30	28
Organization	(20 points total)	18	19
Vocabulary	**(20 points total)**	**20**	**19**
Language use.	(25 points total)	22	22
Mechanics	(5 points total)	4	4
TOTAL SCORE	**(100 points total)**	**94**	**92**

Appendix-8. Frequency of lexical errors made in each subcategory as appeared in the order presented in the taxonomy

	1st year		3rd year	
Error types	**Token**	**%**	**Token**	**%**
A Formal errors				
1 Formal misselection				
1.1 Suffix type	**60**	8,61	**51**	7,09
1.2 Prefix type	**2**	0,29	**2**	0,28
1.3 Vowel-based type	**30**	4,30	**12**	1,67
1.4 Consonant-based type	**11**	1,58	**11**	1,53
1.5 False friends	**0**	0,00	**0**	0,00
2 Misformations				
2.1 Borrowing (L1 words)	**3**	0,43	**6**	0,83
2.2 Coinage	**1**	0,14	**0**	0,00
2.3 Calque	**59**	8,46	**68**	9,46
3 Distortions				
3.1 Omission	**41**	5,88	**35**	4,87
3.2 Overinclusion	**12**	1,72	**13**	1,81
3.3 Misselection	**19**	2,73	**16**	2,23
3.4 Misordering	**7**	1,00	**0**	0,00
3.5 Blending	**10**	1,43	**3**	0,42
B Semantic errors				
1 Confusion of sense relations				
1.1 General term for specific one	**14**	2,01	**6**	0,83
1.2 Overly specific term	**0**	0,00	**3**	0,42
1.3 Inappropriate co-hyponyms	**0**	0,00	**0**	0,00
1.4 Near synonyms	**92**	13,20	**69**	9,60
2 Collocation errors				
2.1 Semantic word selection	**105**	15,06	**183**	25,45
2.2 Statistically weighted Pref	**26**	3,73	**22**	3,06
2.3 Arbitrary combinations	**23**	3,30	**17**	2,36
2.4 Preposition partners	**110**	15,78	**120**	16,69
2.5 Idiomatic expressions	**12**	1,72	**13**	1,81
3 Connotation errors	**12**	1,72	**8**	1,11
4 Stylistic errors				
4.1 Verbosity	**17**	2,44	**11**	1,53
4.2 Underspecification	**31**	4,45	**50**	6,95
TOTAL	**697**		**719**	

APPENDIX- 9. Participants' lexical errors categorized according to the error types in each group formed based on the participants' writing scores.

3RD YEAR STUDENTS	1ST YEAR STUDENTS
1 Formal misselection 1.1 **The suffix type**. ***Category 1 - wrong suffix*** **Group 1** -------- **Group 2** makes people **obesity <A1.1 obese>** made our life more **visualized<A1.1 visual >** big dangerous**<A1.1 danger >** addictive**<A1.1 addicted >** people are **opposite <A1.1 opposed >** to this idea Before **inventing <A1.1 invention>** the phones are **addicting <A1.1 addicted>** productions **<A1.1 products>** **makes** the world **beautify <A1.1 beautiful>** **technologically<A1.1 technological>** development. wrongly **< A1.1 wrong >** way. live more **easier <A1.1easily>** technology **<A1.1 technological>** inventions Humanity **<A11 human-beings>** **affect < A1.1 effects >** their **affects<A1.1 effects >** on people **Group 3** about live <**A1.1 life>** **developing <A1.1 developments>** in health **relation <A1.1 relationships >** between people, **comfortable <A1.1 comfortably >** **vaccinates <A1.1 vaccines>** **communicative <A1.1 communication >** skills **funny <A1.1 fun >** **meaningful <A1.1 meaningless >** and unacceptable Computers are **trustable< A1.1 trustworthy >** **Taken <A1.1 Taking>** advance **< A1.1 advanced >** discoveries. preventing **abusement <A1.1 abuse >** and **misusages < A1.1 misuse>**, used for **communicating <A1.1 communication>**. **Group 4** the criticizes**<A1.1 criticism >** **polluting< A1.1 pollutant >,** would **life<A1.1 live>** 300 years ago? the **elders <A1.1 elderly people >**	***Category 1 - wrong suffix*** **Group 1** discovers**<A1.1 discoveries >** technology **<A1.1 technological >** era its **using <A1.1 use >** was decreased. live more **comfortable <A1.1 comfortably >** make calling**<A1.1 calls >** with them make communication **weaked<A1.1 weaker >** **Group 2** untrustworthy**<A1.1 untrusting >**. unbeliavable changed **<A1.1 changes >** mostly **<A1.1 most >** technological devices double the speed of**producing<A.1.1production>** other qualifications **<A1.1 qualities>** of phone managing**<A1.1 management** be **deceitful <A1.1 deceptive>** . should also **careful <A1.1 care >** about our child be **depend <A1.1 dependent>** **trading<A1.1 trade >** between countries good thing ends **bad<A1.1 badly >** used **careless<A1.1 carelessly >** the most **usable<A1.1 useful >** more **practical <A.1.1 practicalLY>** more **comfortable <A.1.1 comfortablY>** significance **<A1.1 significant >** **Group 3** **stressful <A1.1 stressed >** and impatient **immunity <A1.1 immune >** system. of **discovers<A1.1 discoveries>** do all the housework single-handed**<A1.1 single-handedly >** negative **<A1.1 negatively>** **resulted <A1.1 resulting >** from negative effects of TV become **addictive < A1.1 addicted >**to TV **destroy<A1.1 destruction >** addictive **<A1.1 addicted >** very easy and quickly **<A1.1 quick >**. made a *big change* **positively <A1.1 positive >**. just **listening** prefer **<A1.1 preferably >** the radio multi-function **<A1.1 multi-functional >** exposure **<A1.1 are exposed>** to radiation **physically<A1.1 physical >** health **psycologically <A1.1 psychological >** health. makes **communicating <A1.1 communication>** possible making us more **addictive <A1.1 addicted >** to our the **changing <A1.1 change >** itself. are **addicting <A1.1 addicted >**to it **logical <A1.1 logically >**. think **positive<A1.1 positively >**,

APPENDIX- 9. (Continued) Participants' lexical errors categorized according to the error types in each group formed based on the participants' writing scores.

Category 2 - non suffix

Group 1

We *make* big **<A1.1 bigger >**differences

Group 2

an honour **< A1.1 honorable >** person
nonsense **<A1.1 nonsensical >**activity
vision was blur **<A1.1 blurry >**
Anti-social **<A1.1 anti-socialness >**,
lazy **<A1.1 laziness >**
people in *middle <A1.1 middle-aged people >*

Group 3

make us limit **<A1.1 limited >**
a sculpt **<A1.1 sculpture >**
the hope of **human <A1.1 humanity >**
human <A1.1 humanity >

Group 4

Category 3 - unacceptable suffix

Group 1

Group 2

practic<A1.1 practical >
technologic <A1.1 technological >
technologic < A1.1 technological > *productions*
spend ... **nonsensely< A1.1 nonsensically>**
fastly <A1.1 fast>

Group 3

attaction **< A1.1 attact >**

Group 4

their own **creaters<A1.1 creators >**

1.2 **The prefix type**.

Category 1 - wrong prefix

Group 1

Group 2

disabuse <A1.2 abuse> from people.

Group 3

Group 4

get **enfected <A1.2 infected >**

Category 2 - non prefix

Group 4

normally <A1.1 normal > impact on people's lives
human's **<A1.1 humanity's >**creativity

Category 2 - non suffix

Group 1

of **invents<A1.1 inventions>**
comfortable, **lux <A1.1 luxurious >**
power <A1.1 powerful >.

Group 2

world will go on **turns<A1.1 turning >**
direct <A1.1 directly >
the **invent <A1.1 invention>** of the computers

Group 3

on **human <A1.1 humanity >**
the **connect <A1.1 connection>** to internet
store <A1.1 storing > data
can **differ <A1.1 differentiate>**
elder <A1.1 elderly > people.
leads to **improve <A1.1 improving >**your future.

Group 4

Category 3 - unacceptable suffix

Group 1

Group 2

fastly <A1.1 fast>

Group 3

fastly< A1.1 fast>

Group 4

Category 1 - wrong prefix

Group 1

unfunction **<A1.2 Non-functioning>**

Group 2

Group 3

Group 4

Category 2 - non prefix

Group 1

so sufficient**<A1.2 insufficient >**

Group 2

Group 3

Group 4

APPENDIX- 9. (Continued) Participants' lexical errors categorized according to the error types in each group formed based on the participants' writing scores.

3RD YEAR STUDENTS

1.3 **The vowel-based type**

Group 1

Group 2

seperated <A1.3 separated >
massage **<A1.3 message >** option.
our **personel <A1.3 personal>** information
calculater <A1.3 calculator>
good affect < A1.3 effects > and bad *affect*

Group 3

incredably <A1.3 incredibly > affected people's
entartainment <A1.3 entertainment >
entartainment <A1.3 entertainment >.
they **effect <A1.3 affect >** the way we live.

Group 4

contraversial <A1.3 controversial > topic.
carbon **monoxyde<A1.3 monoxide >**
effect <A1.3 affect >our family relationships.

1.4 **The consonant-based type**

Group 1

Group 2

save human **lifes <A1.4 lives>**
their daily lifes **<A1.4 lives>**
describtion <A1.4 description>

Group 3

people's **lifes <A1.4 lives>**
everybody's lifes **<A1.4 lives>**
lifes **<A1.4 lives >**
pozitively **< A1.4 positively >**
a bad think **< A1.4 thing >**for people
fotographs**<A1.4 photographs >**

Group 4

new **lifes <A1.4 lives>**
This is also a great **think <A1.4 thing >**

1ST YEAR STUDENTS

Group 1

relationships**< A1.3 relatives >**

Group 2

easyly <A1.3 easily>
easyness<A1.3 easiness >
such as **monophabia <A1.3 monophobia>**
bacteries <A1.3 bacteria>
all the **inventers <A1.3 inventors>** *of them*
no **guarantie <A1.3 guarantee>**
entartaining <A1.3 entertaining>
In **conclution <A1.3 conclusion >**
effect **< A1.3 affect>** their own era in different
may **effect < A1.3 affect>** people
life being **effected < A1.3 affected>** by
technology.
effect < A1.3 affect > everything

Group 3

seperate <A1.3 separate> families from each
naturel **<A1.3 natural>** disasters,
thet <A1.3 that>
lesson <A1.3 lessen > our humanity
culturel <A1.3 cultural>
an **inventer < A1.3 inventor>**
charecteristics <A1.3 characteristics
socialazation <A1.3 socialization>
okey <A1.3 okay >
To **cunclude <A1.3 conclude>**
TV effect < A1.3 affect> brain development.
be badly **effected < A1.3 affected >** by it
It **effects < A1.3 affect>** every single moment
it **effects < A1.3 affects >**people's health
People's common and **affective < A1.3 effective>** ones in our lives.
affective< A1.3 effective> innovations is TV
the most **effective < A1.3 affective >** ones.

Group 4

Group 1

Group 2

save our **lifes <A1.4 lives >**
make their life more enjoyful **<A1.4 enjoyable>**
payed **<A1.4 paid >**more attention
by housewifes**<A1.4 housewives>**
dimention**<A1.4 dimension >**
teknology**<A1.4 technology>**

Group 3

about their lifes**<A1.4 lives>**
with the hope of better **lifes**<A1.4 lives>
housewifes **<A1.4 housewives >**
There are **tree <A1.4 three>**
goog **<A1.4 good>** time with games.

Group 4

APPENDIX- 9. (Continued) Participants' lexical errors categorized according to the error types in each group formed based on the participants' writing scores.

3RD YEAR STUDENTS	**1ST YEAR STUDENTS**
1.5 False friends	
--	--
2 Misformations	
2.1 **Borrowing**.	
Group 1	**Group 1**
--------	--------
Group 2	**Group 2**
(reklam **<A2.1 advertisement >**)	**gırgır <A2.1>** and television
social medya**<A2.1 media >**	fosil**<A2.1 fossil >** fuels,
e-devlet**< A2.1 e- government>**,	called hiroşima**<A2.1 Hiroshima >**
e-okul**<A2.1 e-school>**	**Group 3**
Group 3	--------
effect on our lives büyük ölçüde **<A2.1 to a large degree >**	**Group 4**
Group 4	--------
some '**deterjan' <A2.1 detergent>**	
2.2. Coinage. Inventing a word from L1	
--------	**Group 1**
	planes, **trens <A2.2 trains >**
	Group 2

	Group 3

	Group 4

2.3 **Calque**.	
Group 1	**Group 1**
When electricity hold up in our hands immediately, lots of mechanical inventions came to the surface. **<A2.3 As soon as the electricity was discovered, it led to lots of mechanical inventions>.**	**take <A2.3 hold >** such **a great place** in human life.
developed **eight time power<A2.3>**.	it gives damages **<A2.3 damages >** us
Internet is clockwork system of our whole humanity time**<A2.3 ?? Internet is the perfect system >**.	**These times <A2.3 Nowadays>**
	our lives times**<A2.3 life expectancy>**.
	transport gap is perfectly wide and sufficient**<A2.3 >**.
	The earlier of 20th century **<A2.3 at the beginning of the 20th century >**
	but the continue of the years **< A2.3 over the years >**
Group 2	**Group 2**
<A2.3 they could be considered an extension of one's limb>	**At the end <A2.3 In conclusion >**
All family, house have television <A2.3 Every home has a television>	force us to the laziness **< A2.3 make us lazy >**
enter <A2.3 log into> Facebook.	**pay attention to <A2.3 be careful about>**
enter Internet <A2.3 log into>	our privacy
But applications is our life today **<A2.3 Applications are really essential to us>**.	so **if we don't want to live it's captivity < A2.3 if we do not want to be addicted to technology,>**
technology **<A2.3 People can discuss the advantages and disadvantages of technology>**,	learn how to **trade on technology accurately <A2.3 use it efficiently>**.
People look their partners by only photos**<A2.3 only see t** Are there any other definition from ''addiction.'' **<A2.3 Can it be defined as anything but addiction?>**	every part **<A2.3 in every aspect>** of our lives.
he partners through photos >	talking more **detailed <A2.3 In detail>**

APPENDIX- 9. (Continued) Participants' lexical errors categorized according to the error types in each group formed based on the participants' writing scores.

harder to decrease this addiction level**, <A2.3 It's harder to get rid of this addiction> leave** your *smart tool* **alone <A2.3 put your smart phone aside>**.
Think once a time **<A2.3 once in a while>** do they have a brain or do you?
some chat application which **reasoning unreal chat < A2.3 leads to inauthentic chat >**.
That gives their psychology damage **<A2.3 causes psychological damage>**.
Television fastens **<A2.3 gives structure to >** our daily life,
We just have to be aware of them and **know their stories < A2.3 how they were invented and developed>**
The people which the same house in **<A2.3 who are in the same house >** talk thanks to internet
They don't feel the real emotions. They use symbols to show their faces. **The real communication doesn't resemble anything. <A2.3 The real communication is much more than this>** (*gestures, mimics, body language and so on...*)
to stand their seats **<A2.3 stand up from their seats >**.
are lost themselves **in sake of technology <A2.3 in ~~sake of~~ technology >**
can **open <A2.3 turn on > our computers**
To myself **<A2.3 In my opinion>**,
use them **with a good manner <A2.3 properly>**,
find something enough **<A2.3 are content >**.
make cook <A2.3 cook >
health problems becoming much more than before**< A2.3 are increasing >**.
according to other age **<A2.3 when compared to other ages>.**
news **separate the other people and everbody <A2.3 lead to polarization among people >**.
talking is provided from internet <A2.3 people talk online >
You answers are so loud to hear **<A2.3 Your answers are loud enough to hear>**.
every invention have another one born. **<A2.3 Every invention is built on another>**
people who **live among job and home and their phone <A2.3 people who are trapped among their jobs, homes and phones>**
Revolutions, inventions and discoveries will go on **< A2.3 continue to emerge >**
people **burn out <A2.3 become extinct >**,
It could be considered them as peoples' artificial body part <A2.3 **they could be considered an extension of one's limb**>.

Group 3

cause to step **<A2.3 lead us >**into new age
people couldn't give any meaning **<A2.3 people couldn't understand >** about how it is working events
but turning to sheep **<A2.3 watching blindly >**while watching (*TV*) is the worst thing
use it(*medicine*) without suggestion of
profession **<A2.3 perscription >**other ways **<A2.3 fields >**such as security, hospitals, etc
if we look at his younger cousins**<A2.3 >**.
used as a trade tool **<A2.3 means of trade**
it's unnecessary to being tired**<A2.3 there's no need for us to tire ourselves out>**.
healthy for the human brain I wonder**<A2.3 I wonder if this is even healthy for the human brain>**
As one of the all this inventions **<A2.3 ~~As~~ > ways of wisdom doubled <A2.3 >**almost every year.
a "strike of technology**<A2.3 revolutionary impact of technology>**" we can say.
TV is really something good if we make **benefit from it< A2.3 make use of it>**.
it makes us **someone idiot<A2.3 stupid>**.
has showed itself to the us **<A2.3 has proved itself>**
technology has out its hand to television **<A2.3 thanks to technology, television has developed>**
inventions levelled up us into space era**<A2.3 Inventions carried us forward into the space era>**.
from a place to another place < A2.3 from one place to another >
As a conclusion **< A2.3 in conclusion>**,

Group 3

supplied easiness to people **<A2.3 provided people with convenience >**
finished the war as a winner**<A2.3 won the war >**
caused to make longer wars **<A2.3 made wars longer>**
devices were developed in 20th century with using of **<A2.3 which used>** electricity
devices is used with **<A2.3 powered by>** electricity
with this way**<A2.3 in this way >**
used in people's live **everytime <A2.3 all the time>**
can differ **clear ones from dirty ones. < A2.3 accurate information from false information**
with the hope of better *lifes* **<A2.3 in the hope of a better life >**

APPENDIX- 9. (Continued) Participants' lexical errors categorized according to the error types in each group formed based on the participants' writing scores.

people evaluate this situation as a technology **<A2.3 regard using mobile phones to stalk people as using technology>**. living as a tree **<A2.3 like vegetables >** have damages to us **<A2.3 damage us /affects us negatively>** in terms of health spent most time on the way **<A2.3 in transit>** our destiny place **<A2.3 destination>** are must **<A2.3 necessary>** for the science of craft **<A2.3 invention >** **checking computer <A2.3 checking online accounts>**. Their impact on our life has becomed **< A2.3 They have impacted our lives >** in many areas such as technology and science. It cannot be undoubtly thought the world without internet **<A2.3 Undoubtedly, it is impossible to imagine a world without the internet>**. **big step towards forward <A2.3 forward >** carried the curiosity **<A2.3 wondered >** for ages technology can suck up our blood**<A2.3 drain** These programmes **brick our moral issues**. **<A2.3 corrupt us morally >** unsocial people increase from their point of view **<A2.3 the number of unsocial people increase because of the inventions and discoveries >**. located on **<A2.3 are found in >** people's life bring heavy photograph machines **< A2.3 cameras >** with them. I believe that it is in our hands **<A2.3 it is in our power>** to use these inventions **<u>provides</u> to make people reach to< A2.3 Allows us to communicate with >** all people how inventions make easy surviving **< A2.3 would simplify survival >**. **have communication <A2.3 communicate >** easily and fast. the electricity is cut off **<A2.3 cut out >** consuming the sources of the world **<A2.3 world's resources>** at the first times **<A2.3 at the beginning >**, **argue < A2.3 discuss >** the great inventions **<u>Group 4</u>** after **<A2.3 because of >** great inventions and discoveries of 20th century. This situation can debate on disadvantages and advantages of everytime **<A2.3 all the time >**, 'At our times **<A2.3 in my day>**, might miss something going on **around their environment <A2.3 around them>**, inventions are **related to each other as chains<A2.3 linked together >**. Therefore, they include civil population to the war **<A2.3 cause civilian casulties >**. **make gossip** <**A2.3 gossip**> about photo	ventions **surrounded (A2.3 dominate)** our lives. the movement of cars were provided **<A2.3 carriages were powered >** by horses The world is **rounding <A2.3 turning >** for to **<A2.3 to>** remind to **develope our universe<A2.3 make the world better place>**. See you in inventions to come**< A2.3 I look forward to sharing my opinion about new inventions soon>**! (television) is opened**<A2.3 turned on >** in the morning (television) is closed**<A2.3 turned off >** at night. changes the brain's thinking function**<A2.3 processesing >**. *lesson* our humanity as physiological**<A2.3 fitness level >**. We **force <A2.3 tax >** our **<u>Group 4</u>** it makes **our process in ill shorter <A2.3 the duration of our illness shorter >**. a **children with ten years old <A2.3 a ten-year-old child>** would like to enter internet**<A2.3 go online >** use it everytime**<A2.3 all the time >** moved off each other**<A2.3 became secluded from each other>** **to open <A2.3 turn on > TV and watch it.**

APPENDIX- 9. (Continued) Participants' lexical errors categorized according to the error types in each group formed based on the participants' writing scores.

3RD YEAR STUDENTS

3 Distortions

3.1 **Omission**

Group 1

we **recreat** < **A3.1 recreate**> it

Group 2

20th centry **<A3.1 century>**.
unsuccesful **<B3.1 unsuccessful**
On **<A3.1 one >** of these great inventations
creates fun to live happly **<A3.1 happily >**.
to **chose <A3.1choose>** one of them
humas **<A3.1 humans >** never
forcast**<A3.1 forecast >**,
Ther're **<A3.1 there're>**
Everybody though **<A3.1 thought>**
everthing <A3.1> from *internet and service*

Group 3

Begining <A3.1 beginning >
entertaiment <A3.1 entertainment >,
continosly <A3.1 continuously >.
ilnesses **<A3.1 illnesses>**
many **ilnessess <A3.1 illnesses>**
invented ad **<A3.1 and >**discovered.
goverment < **A3.1 government** >
Tecnology <A3.1 technology>
tecnologies <A3.1 technologies>
easir **<A3.1 easier >** our life
The **wold <A3.1world>**
becaus **<A3.1 because>**
discoveris**<A3.1 discoveries >**
took a **hig< A3.1 high >** step,
the **rots < A3.1 roots >**of the developments
specially**<A3.1 especially >** for the young.
make widened **researhs <A3.1 researches>**,
researchs **<A3.1 researches >**
tecnology <A3.1 technology>

Group 4

Nevertheles <**A3.1 Nevertheless >**,
acces <A3.1 access >
horse **cariages<A3.1 carriages>**.
caos**<A3.1 chaos >**.

3.2 **Overinclusion**

Group 1

greatiest <A3.2 greatest >

Group 2

Throught <A3.2 Through> televisions,
latter <A3.2 later >
habbits <A3.2 habits >.

1ST YEAR STUDENTS

Group 1

bicyle **<A3.1 bicycle >**
somewher**<A3.1 somewhere >**, it make them lazy...
enviroment <A3.1 **environment** >,
healty**<A3.1 healthy >** products
healt **< A3.1 health>**.
environent**<A3.1 environment >**,
easer**<A3.1 easier >**

Group 2

totaly **<A3.1 totally >**.
advantge <A3.1 advantage>
thre **<A3.1 there>**is a lot of life has been
we **ar <A3.1 are>** growing alone
Unfortunaly <**A3.1 Unfortunately**>,
wich**<A3.1 which >**
effect on humnity **<A3.1 humanity >**
very **benefical <A3.1 beneficial >**.
smell **swet< A3.1 sweat >**.
realy <A3.1 really >

Group 3

millons **<A3.1 millions >**
communicate wit **<A3.1 with >** *themselves*
electricty**<A3.1 electricity>**
centur **< A3.1 century>**
healtier <A3.1 healthier >
Throught **<A3.1 throughout >** the history
a formal instituon **<A3.1 institution >**
serie **<A3.1 series >**.
an**<A3.1 and >**
wee **<A3.1 were >**
Pysologists **<A3.1 Psychologists>**
each othe <A3.1 other >
quizes**<A3.1 quizzes >**
your chil**<A3.1 child >**,
gettin **<A3.1 getting >**
generat **<A3.1 generate >**
physic <A3.1 physics >
ragdols **<A3.1 ragdolls >**",
imposible**<A3.1 impossible >**
take of<A3.1 off >
Previousy<A3.1 previously >
visting <A3.1 visiting> different place

Group 4

each othe's<A3.1 other's >
ilness **<A3.1 illness >**

Group 1

Group 2

plants were **discoveried<A3.2 discovered >**
scientients <A3.2 scientists>
hearth <A3.2 heart >

APPENDIX- 9. (Continued) Participants' lexical errors categorized according to the error types in each group formed based on the participants' writing scores.

techonologies <A3.2 technologies >
discoveried <A3.2 discovered>,
Group 3
illnesseis <A3.2 illnesses >
innventions <A3.2 inventions >
Rejecting these **news <A3.2 new>** inventions
data from **encyclopaedia**, **<A3.2 encyclopedia >**
proffessions<A3.2 profession >
Group 4
bussiness<A3.2 business >
catasthropic <A3.2 catastrophic >

3.3 **Misselection**
Group 1
oppurtinities **<A3.3 opportunities >**
surrended**< A3.3 surrounded >**
Group 2
to be **indispensible <A3.3 indispensable>**.
invitations **<A3.3 inventions >**
advertaisment**<A3.3 advertisement>**
a **collage <A3.3 college >** student
loudges<A3.3>
inventations<A3.3 inventions >
Group 3
deteoriate <A3.3 deteriorate>
comminication <A3.3 communication>,
an **incredable <A3.3 incredible>** impact on
the set **<A3.3 steam >**engines
automiles **<A3.3 automobiles >** great impact.
wity **<A3.3 with >**
Group 4
donot **<A3.3 do not >**
the **industrualism <A3.3 industrialism>**

3.4 **Misordering**

3.5 **Blending**
Group 1

Group 2

Group 3
usefullnes **<A3.3 usefulness >**

machienes <A3.2 machines>
Group 3
discoveried <A3.2 discovered> them.
musics **<A3.2 music>**,
politicial <A3.2 political> and social events
to **develope <A3.2 develop >**
capabilitiy <A3.2 capability >.
kbyte**<A3.2 kb >**
heared; **<A3.2 heard >**
alfabeth **<A3.2 alphabeth>**
Group 4

Group 1
diffence <A3.3 difference>
transperation **<A3.3 transportation >**
transportin **<A3.3 transportation >**
transportion <A3.3 transportation >
Group 2
a monate **<A3.3 monotonous>** and boring life.
advensments **<A3.3 advancements >**
not may **<A3.3 make>** any sense,
but do alsaw **<A3.3 also >** deny.
exepting**<A3.3 accepting >** this
teknologig **<A3.3 technological>**
dield **<A3.3 dialed >** in our contacts lists.
Group 3
poslutively **<A3.3 positively >** and negatively
phycological **<A3.3 psychological >** damage
theis**<A3.3 their >** capability
more anverced**<A3.3 advanced >**.
may become **hipnozited<A3.3 hypnotized >**,
the **plagraism<A3.3 plagiarism>** .
suop <A3.3 soap >operas
Group 4
happing<A3.3 happening >

Group 1
centruy <A3.4 century>
reletad **<A3.4 related>** equally *with* trade.
Group 2
documentray <A3.4 documentary>
Group 3
time to play or **sociliaze <A3.4 socialize >**
centruies **< A3.4 centuries>**,
physcis<A3.4 physics >
sumilation**<A3.4 simulation >**.
Group 4

Group 1
Group 2
usefull**<A3.5 useful >**
colorfull**<A3.5 colorful >**.
thankfull**<A3.5 thankful >** to
wonderfull <A3.5 wonderful >

APPENDIX- 9. (Continued) Participants' lexical errors categorized according to the error types in each group formed based on the participants' writing scores.

3RD YEAR STUDENTS	**1ST YEAR STUDENTS**
armfull **< A3.5 harmful >** **Group 4** **untill <A3.5 until>**	untill**<A3.5 until >** carefull**<A3.5 careful >** pityfull**<A3.5 pitiful >** beggining **<A3.5 beginning>** any sense, **Group 3** very usefull**<A3.5 useful >**. **easilly <A3.2 easily >** **Group 4** --------
B. SEMANTIC ERRORS	
1 Confusion of sense relations	
1.1 **Using a superonym for a hyponym**.	
Group 1 -------- **Group 2** smart tool **<B1.1 smart phone>** international **works <B1.1 business>** inventions have been **done <B1.1 invented >** **Group 3** do not use good **points <B1.1 aspects >** of these inventions **Group 4** a kind of machines**<B1.1 computer system>**. strong**<B1.1 resilient >** in harsh climate conditions	**Group 1** -------- **Group 2** arrange **<B1.1 organize>** your time Internet has some negative points **<B1.1 aspects >** protect them from bad effects**<B1.1 risks >** trying to give them proper education many plants...to consist of drugs**<B1.1 have medicinal applications>**. it happened really fast**<B1.1 suddenly >**. do your stuff **<B1.1 work >** without internet **can call <B1.1 refer to>** television as a revolutionary solution. may effect people **bad <B1.1 negatively>** go **<B1.1 travel to >** distant places **Group 3** to reach **<B1.1 acquire >** the things they wanted people use**<B1.1 drive >** car Meeting new people look **<B1.1 appear>** ascinating at first **bring back < B1.1 retrieve >** data whenever you want. **Group 4** Transportation **<B1.1 Vehicles>**
1.2 **Using a hyponym for a superonym.** **Group 1** -------- **Group 2** -------- **Group 3** see our **lovers <B1.2 loved ones >** **ginger <B1.2 spice >** it up. So, use this great invention wisely. lots of requirements**<B1.2 things >** **Group 4** --------	--------
1.3 **Using inappropriate co-hyponyms**	
--	--

APPENDIX- 9. (Continued) Participants' lexical errors categorized according to the error types in each group formed based on the participants' writing scores.

1.4 **Using a wrong near synonym**

Group 1

Last**<B1.4 recent >** decades'

Group 2

think <B1.4 be considered >
better than you can **think < B1.4 imagine>**
Nobody **think <B1.4 can imagine>**a life without internet.
think **<B1.4 imagine >** the world without airline transportation
fasten **<B1.4 quicken>** our lives
impact on people's lives in unlimited **<B1.4 infinite>** way.
Due to the **anxiety <B1.4 fear>**
addictive **tools <B1.4 devices>**.
keep **developing <B1.4 improving >**the televison.
developed **<B1.4 improved >** the size of television.
mankind **met <B1.4 encountered >**with technology
mental heaviness of the work **lowered <B1.4 abates>**
seen like **<B1.4 considered >** an insignificant one
Trying **<B1.4 striving >** for
Technology is necessary for living in **nowadays <B1.4 the modern age>**.
used in many **sectors <B1.4 fields>**
used wrong **aims<B1.4 intentions >**
area < B1.4 field >.

Group 3

to **think <B1.4 consider >** our world without mobile phones
unimportant to **think < B1.4 consider >**
conscious **<B1.4 aware >** people.
wrong **role-model< B1.4 example >**
reach <B1.4 access >the information,
reachable <**B1.4 accessible**> information.
to **reach <B1.4 access to>** *knowledge*
reach **knowledge <B1.4 information >**.
more than **<B1.4 outweigh >** negative ones.
time consuming **< B1.4 wasting time >**
despite <B1.4 in spite> of distances
do your task **rapidly**. **<B1.4 quickly>**
decide **<B1.4 determines>** if the phones are beneficial or not.
The important **<B1.4 main > reason**
takes so **<B1.4 such a >** short time.
worth-to-live <B1.4 worthwhile>
mobile phone is **significant <B1.4 valuable >** to communicate
for **most <B1.4 the majority of >** us interested in technology.
consuming long hours<B1.4 taking a long > for doing chores

Group 1

Except from **<B1.4 besides>** horse,
go anywhere **rapidly <B1.4 quickly >**.
pharmacy**<B1.4 perscription drugs >**.

Group 2

Another benefits of Internet is the reach **<B1.4 access >** an information
you are in alfresco **<B1.4 outside >** if you have an access to internet
It provides **<B1.4 enables >**people to access videos
This autonomy **<B1.4 independence >** to access
hence **<B1.4 ergo >**
Coaches <B1.4 wagons > replace with cars.
using inventions **went up <B1.4 increased >**
go somewhere from a place to another place **eased <B1.4 became easier >**
world will go on turns more **effectively**. **<B1.4 efficiently >**
inventions supplied **<B1.4 provided >** so many convenience to world.
inventions... **found <B1.4 existed >**before
computer, cellphone**,** internet and the tools **< B1.4 devices >**
a great **development <B1.4 progress>** in people's lives.
super-human models **<B1.4 examples >**
to produce **<B1.4 create>** solutions magnitude **<B1.4 importance >**
so developed **<B1.4 advance >** in every area.
Beside of **<B1.4 In addition to >**
Except from <B1.4 besides>
much more related **<B1.4 relevant >**with us.
the people **aim<B1.4 intentions >**.
a couchpotato**<B1.4 Couch potato>**.
contrary **<B1.4 compared >** to today.
Contrary **<B1.4 in contrast >**to early stages of television
the biggest **<B1.4 greatest >**invention
them to **be dominant** over **<B1.4 control >** people.
live more **smarter <B1.4 Intelligently>,**
the inventions **going on<B1.4 continue>**.
maybe **<B1.4 possibly >** the most incredible century
incredibly wide **<B1.4 broad >**
interested **<B1.4 curious >**creatures

Group 3

think **<B1.4 considered >** that what would you do without internet or television?
without **thinking <B1.4 considering >** time.
think <B1.4 considered > how people communicate

APPENDIX- 9. (Continued) Participants' lexical errors categorized according to the error types in each group formed based on the participants' writing scores.

reach even the most solitary **<B1.4 isolated >** place,
a huge **space<B1.4 gap >**,
and **dominate< 1.4 control >** us,
inventions' bad**<B1.4 negative >** impact
achieve unreachable **<B1.4 inaccessable>** *fastly*
The only **aim< B1.4 purpose>** was to call others.
observed **much< B1.4 a lot >**.
and **bad < B1.4 negative >**effects,
damages <B1.4 risks > of internet usage.
using internet **unconciously<B1.4 blindly >**,
crucial <B1.4 vital > inventions
crucial < B1.4 vital >
no time for **caring <B1.4 to take care of >** their babies,
humanbeing <B1.4 humanity >,
reach <B1.4 find > something
search <B1.4 look up > everything you need to know.
tool (*smart phone*) **<B1.4 devices >**.
In parallel <B1.4 similarily > these

Group 4

their relationships **finish<B1.4 end>**
seperate <B1.4 drift apart >
knows at a same time **< B1.4 instantaneously >**what happens in their life.
take their cautions **<B1.4 precautions >** for children
find any topic to talk **<B1.4 discuss>**
Briefly**<B1.4 in short>**,
consequences **<B1.4 the outcome >** would have been dire.
a lot of **< B1.4 huge >**impact on people's lives
grab **<B1.4 capture >** the students' attention.
great deal of **<B1.4 numerous >**inventions
reach the **needed <B1.4 necessary >** information
expected<B1.4 impending > famines

CATEGORY - INFORMAL

Group 1

Group 2

infos**<B1.4 information >**.

Group 3

Group 4

---

can't **think <B1.4 imagine >**life without televison.
nobody can **think < B1.4 imagine > a life** without internet,
besides **<B1.4 in addition to>** positive effects
to continue **<B1.4 maintain >** this rapid productions.
whole**<B1.4 all of >** these advantages
considerable **<B1.4 noteworthy>** invention
it manages**<B1.4 controls>**
wars' time**<B1.4 duration >**.
temporary **<B1.4 perishable >** foods
affected all **<B1.4 the whole >** world
phones supply**<B1.4 provide >** communication
directed **<B1.4 led>** to people bad habits.
No matter **<B1.4 despite the fact that >**
because of it's hardship**<B1.4 difficulties>**.
avoid <B1.4 escape > from their discoverie
new models **<B1.4 examples>** of the technological devices.
highly <B1.4 mainly> resulted
reaching **<B1.4 accessing >** your documents
when we **look from < B1.4 consider >** both sides
inventions and discoveries have accompanied **<B1.4 come into >** our lives
has been **<B1.4 become>** more serious
playing game or surfing on the net is charming **<B1.4 tempting >**to them.
walk for **arriving place <B1.4 reaching a place >**.
inventions of age. **<B1.4 the era>**
has a good impact **<B1.4 effect>**
affected our age importantly**<B1.4 significantly>**.
have some **dangers<B1.4 risks >** too, if they don't used correctly.
Anything <B1.4 everything>.
really **important <B1.4 significant >** harms
Specially <B1.4 especially>,
have several harms**<B1.4 risks>**
to our health
in pretty much any **condition <B1.4 situation >**.
bring out <B1.4 emphasizes> the issue
to **reach <B1.4 access >** things more easily
have time for our duties, homeworks or **works <B1.4 tasks >**,
affect us also badly **<B1.4 negatively>**.
In spite of their damages**<B1.4 risks >**,

APPENDIX- 9. (Continued) Participants' lexical errors categorized according to the error types in each group formed based on the participants' writing scores.

Computers provide us keep
<B1.4 allow> us <B1.4 to save
>our information
provide us**<B1.4 allow us to**
communicate with
it (life without the Internet) must
be **fantastic <B1.4 unreal >**
to talk **<B1.4 chat >**on internet.
opportunity to **know<B1.4**
learn> news from
the new generation all over**<B1.4**
over > the years.
think a little bit widely **<B1.4**
broadly >
raised **<B1.4 increased >**.
Such as <B1.4 for example> ,
to reach **<B1.4 access>** any
information

Group 4

think <B1.4 consider > a life
without Internet.
other **<B1.4 another >** level.
stabilize **<B1.4 maintaining>**
your speed
unreliable <B1.4
untrustworthy > web sites
insufficient **<B1.4 lack of >**
opportunities,

CATEGORY - INFORMAL

Group 1

Group 2

not gonna **<B1.4 going to>**use

Group 3

kinda **<B1.4 kind of**

Group 4

----

2 Collocation errors

2.1 Semantically determined word selection.

Group 1

inventions **like<B2.1 such >** as electricity,
electricity is **invented< B2.1 discovered >**;
people are longer **depended on <B2.1 limited by>**
darkness.
We make **<B2.1 have >** *big* differences

Group 2

relationships.**unbelievable<B2.1 infeasible>** to predict
examine people's lives **throught <B2.1 by means of>**
internet.
magic <B2.1 advance technology>.
guides <B2.1 suggests >
get the news from future **<B2.1 communicate with the future>**.
People **use <B2.1 do>** what makes them happy
famous **<B2.1 popular>** one.

Group 1

in every terms **<B2.1 aspect >**
They **support<B2.1 argue >** that pharmacy
has only trade
people **had<B2.1were >** afraid of traveling
improved **perfectly <B2.1 incredibly >**
new **world's <B2.1 era >**people's life
inventions **make<B2.1 give >** us more
power

Group 2

to be adequate **<B2.1 successfully >**heal the
sick
prefer to stay at home and using **<B2.1**
playing> games
feel alone **<B2.1 lonely>**
No matter**<B2.1 Even if>**

APPENDIX- 9. (Continued) Participants' lexical errors categorized according to the error types in each group formed based on the participants' writing scores.

find a job **with <B2.1 thanks to>** internet.
funny**< B2.1 fun >** activities.
İnstagram, snapchat, whatsapp, are **often< B2.1 common>**.
nobody **ignores <B2.1 denies>** the technology changed people's life.
they are **our another world <B2.1 virtual** world **>**
At the end **<B2.1 As a result >** of these,
necessary < B2.1 imperative >
provide <B2.1 allow us > to communicate
provide <B2.1 allow> the people to communicate
provide <B2.1 enable> the people to access
access different news or **knowledge <B2.1 information >**.
access <B2.1 reach >their parents
cannot **know <B2.1 learn>** everything easily.
The cell phone is one of the most important discoveries **<B2.1 inventions>**.
kept developing **occasionally <B2.1 over time >**.
in **aspects<B2.1 terms>** of fun, communication and helpfulness.
We can **give <B2.1 teach>** them some basic **treatments <B2.1 behaviours>** thanks to the television.
the **great parts <B2.1 main reason>** of this because of technology
inventions **provides <B2.1 allows >** people to
put a *bottom* **<B2.1 push a button >**
Vanishing <B2.1 losing > these varieties
developments keep still on**<B2.1 continue >**.
can't **run away from <B2.1 avoid>** developments and inventions.
couldn't use to communicate with our friends **freely<B2.1 easily>**.
young man could **alive <B2.1 survive>**
this situation **depends <B2.1 based>** on true story.
Cell phone, internet and computer are …**discoveries <B2.1 inventions >**
dream <B2.1 imagine> that
this **situation <B2.1 supposition >**
discoveries < B2.1 inventions >
improved < B2.1 advanced >machines
affects badly< B2.1 have negative effects >.
dirty **dishes < B2.1 clothes**>,
wind < B2.1 set > alarm
inventions hadn't been **happened <B2.1 invented>**
the world is destroyed because **when <B2.1 of the fact that >** we are getting addicted to internet.
be regarded**<B2.1 imagined >**.
until these time **< B2.1 up to now >**
to **grow < B2.1 develop >** our world.
every **department <B2.1 field >**
invention and discovery **occur < B2.1 lead to >** so many problems
social media **cites <B2.1 accounts>**.
knowledge <B2.1 information >
assists <B2.1 provides> a lot of benefits for us.
magnitude entertainment **<B2.1 lot of entertainment>**
spend their time **enjoyfully<B2.1 pleasantly>**.
In **contrary <B2.1 contrast >**,
inventions and discoveries **based on <B2.1 from >**20th century.
caused to **rise up <B2.1 an increase >**
caused to rise up of **discoveries <B2.1 technological advances>**.
Doctors **did some works <B2.1 research>** on blood transfer
creative and **orginator<B2.1 innovative >**
live in more **useful <B2.1 convenient>**world.
couples of **<B2.1 a few>** great inventions
inventions ...**found <B2.1 are seen >** in 20th century
make <B2.1 do > their **work** on computer
computers **are made<B2.1 exist >**
washing machine, vacuum cleaner and the other **discoveries <B2.1 inventions>**,types of **cancer grows<B2.1 cancer cells >**
skin **disaster <B2.1 disease>** .
did <B2.1 made> thousands of technological devices
Ground <B2.1 floor >
most important **devices <B2.1 inventions >** of the 20th century
daily **issues<B2.1 tasks >**
medical **devices <B2.1 technology>**
abstain from <B2.1 refrain from> contacting other people.
limitless **progress <B2.1 process >**
far away from eachother thanks to the **developments<B2.1 technology>**.
From the time being <B2.1 Now >, we can fly, we can communicate while we are far away from each other and so on...
inventions and discoveries have **come to come to <B2.1 emerged in>** the 20th century
trade **ways <B2.1 route>** can also **connect <B2.1 access >** our bank accounts.
Core <B2.1 key> role in our lives.
makes them alive <B2.1 exciting >
tick 60 times in a minute and called a time machine**< B2.1 Clock >**.
support <B2.1 allow us > to do it.

<u>Group 3</u>

sent letters ...and they had a **feedback <B2.1 response >** months later.
for **access <B2.1 reach>** to somebody
danger <B2.1 risk> of death.

APPENDIX- 9. (Continued) Participants' lexical errors categorized according to the error types in each group formed based on the participants' writing scores.

evaluate <B2.1 use> them effectively.
caused to**< B2.1 created>** more powerful
explore **<B2.1 research > homework topics**
learn **<B2.1 get >** news

Group 3

properly <B2.1 efficiently >.
use these kind of devices **extremely <B2.1 in excess>**.
helped people to **improve** <**B2.1 increase>** their awareness
their lives in **points** <**B2.1 terms>**of communication
presenter <B2.1 representative > of minority.
harmfully <B2.1 detrimentally>
contexts <B2.1 contents > of these websites
from every age **<B2.1 at any** age**>**
for students **<B2.1 children/young people >**.
harmful future **expectations <B2.1 consequences >**.
be **consequenced with< B2.1 result in >**
Games take **useless** <**B2.1 fruitful >** times from our lives, especially from students.
amoliorate < B2.1 improving >themselves.
leaving <B2.1 putting> your mobile phones **away**, **including <B2.1 ingredients >**
great bad < B2.1 huge negative >effect on health.
By <B2.1 as > people watch it,
affect our living rights badly **<B2.1 basic human rights negatively >**.
private <B2.1 special >days.
communication is **reducing <B2.1 (A2.3) efficient>**
contribute to our **life styling <B2.1 lifestyles >**.
provide various facilities **<B2.1 functions >** in many areas.
foundation **<B2.1 discovery >** of the electricity,
life of people has changed precisely **<B2.1 significantly >**.
living in difficult **situations <B2.1 conditions>**.
When we (dream **<B2.1 use our imagination>**),
can easily **access** to **<B2.1 reach >** each other.
look for < B2.1 go on to the > internet,
main <B2.1 key> word
make easy our life <B2.1 simplify our lives >in many areas.
expressed **<B2.1 mentioned>**
main question in this **matter <B2.1 situation >**
time consuming **<B2.1 time efficiency>**,
in **true <B2.1 correct>** way,
is not more **<B2.1 excessive >**.
funy < B2.1 fun >.
by bare foot **<B2.1 on bare foot >**
use transportation **devices <B2.1 vehicles>**
have many opportunities **by <B2.1 thanks to >** using mobile phones.
this **refers <B2.1 means>** that each family watch TV each day.
have many positive **opportunities < B2.1 effects >**
enables<B2.1 provides > people a choice
lots of **damage <B2.1 risks>** of them
inventions ... was **found <B2.1 invented>**.
this **property<B2.1 function >**
allow **<B2.1 runs >** program
made <B2.1 had> a great effect
maintain their life <B2.1 lifestyle>.
wars for **sources <B2.1 resources >**
discoveries **<B2.1 inventions >** of canned foods
can exactly **<B2.1 definitely>** say
foods are become less **<B2.1 ran out>**.
army has to finish war naturally **<B2.1 by default>**.
communicate *wit* themselves **<B2.1 each other>**
Human **are <B2.1 have >** less interaction with peers.
movies make **<B2.1 cause >** *culturel destroy*
effective <B2.1 influential> innovation
courses are being **made <B2.1 given>**
discover <B2.1 invent> a lot of tools or devices
process <B2.1 potential > is infinite.
this invention is **inevitable <B2.1 indispensible >**
that **<B2.1 like>**
people began to **learn <B2.1 get>** news faster
Even if **<B2.1 moreover>**,
they **did <B2.1 made >**people addicted.
were really **effected <B2.1 had an effect >** on improvement
open <B2.1 enter> the website
bad impacts **come out <B2.1 emerge>**
aspect **<B2.1 essense >**
many cars release to **<B2.1 run on>** gas.
It shouldn't be like that **despite <B2.1 on the contrary >** we
telephones are **huge <B2.1 important>** inventions.
new inventions **show up <B2.1 are released>** everyday in our life.
preserve <B2.1 support>
people who think its impact is bad **confront <B2.1 argue against >**all of this.
They've **minimized <B2.1 shrunk>**and become pc
true **<B2.1 properly >**
skills <B2.1 applications > of other two (telephone and internet)
contains <B2.1 utilizes > the skills
improves the **skills <B2.1 applicablility >**of other two invention.
are **aware of <B2.1 knowledgeable about >** the presention's subject.

APPENDIX- 9. (Continued) Participants' lexical errors categorized according to the error types in each group formed based on the participants' writing scores.

making us stupid due to its **opportunities < B2.1 functions >**.
in **contrary <B2.1 contrast>**
inventions about **<B2.1 relating to the>** telephone,
purpose <B2.1 the situation >
we are all **hypnotized <B2.1 conditioned >** to watch it.
make < B2.1 do> writing, editing
done < B2.1 made> a big difference
to **make<B2.1 do>** research
take <B2.1 get > information about current events.
great <B2.1 most important > inventions
important < B2.1 vital > to have current knowledge of recent events.
communicate **basicly < B2.1 easily >**
lose its **function < B2.1 meaning >** should not be forgetten.
being < B2.1 getting >better and better
advanced **discoveries <B2.1 inventions>**.
technology **provides <B2.1 allows >** us to discover new horizons.
the **aspects< B2.1 fields >** of communication, genetics, transportation.
Knowledge is now **near of us<B2.1 at hand >**,
technologies whick **took place <B2.1 were invented>**
actors<B2.1 influences >
be loaded **<B2.1 supplied >** with information
convey <B2.1 deliver > it (information). .
it ease **<B2.1 simplifies >** our lives.
overrated it **< B2.1 trusted it too much >**.
It **captures <B2.1 takes over >** our live
With lots of **easiness <B2.1 convenience >**,
appropriate <B2.1 beneficial >for you.
in danger of **abusement<B2.1 negative effects >**.
praised<B2.1 valued >
overrated<B2.1 appreciated >
be **disturbing<B2.1 detrimental>**
cannot do anything else rather than obeying**<B2.1 succumb to >** it.
Devices**<B2.1 advancements >**
need**<B2.1 necessary >**.
provides **<B2.1 allows >**
(inluding informative**<B2.1 educational >** ones),
but vice versa**<B2.1 just the opposite >**.
use computers for investigation**<B2.1 google searches>**
missed ones **<B2.1 ones they haven't seen yet>**
Shortly<B2.1 In short >,
in **contrast <B2.1 contrary to >**
in favor of **< B2.1 beneficial to >**human beings.
women's **destiny<B2.1 lifestyle >**.
thinking this statement **vice versa< B2.1 the opposite>**
have taken < B2.1 gained a place of > a great importance.
self-computers **<B2.1 personal computers >**
provides that we can **<B2.1 allows us to >**
a new **position<B2.1 era >**.
have no idea <B2.1 cannot imagine >
To **finish** <**B2.1 conclude >**,
can't even image the suffering people **lived <B2.1 endured >** in dark ages
real **life alike <B2.1 life-like >**
scene <B2.1 animation >
rendered in these engines or real**<B2.1 live action>**
conditions mostly not on people's *healt*
reach eternal information with no **pain<B2.1 hassle >**
remind <B2.1 stay in touch with >people
In this **rounding <B2.1 changing >** world, inventions that we use in our daily life **is based on <B2.1 were invented in>** 20th century.
some **inventions <B2.1 advancement >** in health issues.
a life-changing effect of **developments <B2.1 technological advancement >**.
affects badly <B2.1 negatively affects> their both

Group 4

In our daily **works <B2.1 tasks >**,
chasing the speed **<B2.1 pursuing speed>**
Wars **led <B2.1 resulted in>** a lot of innovations.
arrive <B2.1 be delivered > to them.
important discoveries **<B2.1 advances>**
make <B2.1 do > everything
is **made <B2.1 done >** with computers.

APPENDIX- 9. (Continued) Participants' lexical errors categorized according to the error types in each group formed based on the participants' writing scores.

technology **century <B2.1 technological era >**.
in every **inch <B2.1 aspect >** of our lives.
because of **need <B2.1 out of necessity >**. It is always like this. When you need something, you try
have impact on people's lives are **made<B2.1 made an impact on people's lives >**.
the **discovery <B2.1 invention >**of computer,
necessary **important<B2.1 vital >**
it is opened to people **<B2.1 it was opened up to the public>**.
difficult < B2.1 inaccessable> information

Group 4

finding <B2.1 inventing> the internet
'searching part' <B2.1 search bar>
thought <B2.1 realized>
get back the **elapsed<B3 B2.1 passed>** time.
technology **composed of <B2.1 is limited to>** computer
printing works**<B2.1 a printer >**.
until now**< B2.1 thus far >**.
took a role <B2.1 played a role > ***for***
the unlimited **zone <B2.1 scope >**of the internet
an impossible **duty< B2.1 task >** to find someone
The **urgent <B2.1 main >** reason
technology **grew <B2.1 developed >** telephones turned into something
the **development<B2.1 invention >** of internet,
cannot **be <B2.1 survive >** without the airplanes.
be **compensated<B2.1 fixed >** again by humanbeings such as forest fires,
As a result, airplanes are the fastest assistants **<B2.1 transportation >** of people.
airplanes in the **inventory of army <B2.1 arsenal >** can be threatening for the enemies.
providing <B2.1 allowing us to > calling someone in ten seconds
in our schools or **works<B2.1 jobs >**,
as much as we **need <B2.1 necessary >**
welfare-satisfying <B2.1 beneficial > discoveries,
depleted <B2.1 reduced >the number of visually impaired
ozon layer **breaking<B2.1 damaging >** gasses.
inventions < B2.1 advancements> such as vaccines, pills, and disinfectants.
a **bliss <B2.1 a blessing >** for us.
three main (Internet, Smart phones, Social media) **discoveries <B2.1 inventions >**

2.2 Statistically weighted preferences

Group 1

Group 2
enter **<B2.2 go on >**the dangerous sites.
as it is guessed **<B2.2 one would guess > '**
drying machine **<B2.2 dryer >**
flight machines **<B2.2 planes>**,
has too many impacts **<B2.2 effects>** on human life

Group 1

Group 2
internet it is reaching its **utmost rate <B2.2 top speed >**
children are **facing become <B2.2 at risk of becoming >** an unsocial adults.
grown instantly **<B2.2 instantaneously>**.

APPENDIX- 9. (Continued) Participants' lexical errors categorized according to the error types in each group formed based on the participants' writing scores.

Group 3
affects the health badly**<B2.2 negatively>**,
according to **<B2.2 based on >** their needs.
produce **<B2.2 manufacture >** transportation
cannot be a bad points **<B2.2 thing >**,
save our time **<B2.2 save time >**.
can't **stay as same < B2.2 stay the same >**forever
Keep **<B2.2 save >** the information.
false **<B2.2 untrue >** information
want more and more wishes**<B2.2 things >** and it brings us a time and energy loss.
humankind**<B2.2 mankind**
As a conclusion**< B2.2 in conclusion >**,
is the biggest economy of time **<B2.2 time saver>** for me.
habitants**< B2.2 inhabitants >**
Group 4
recognize < B2.2 realize> this,
the **last day <B2.2 end>** of the world.
Using technology in **education sectors <B2.2 the field of education>**
Exploring on **<B2.2 surfing >** the internet,
spend more time **with <B2.2 using >** technology
eased the life much more **<B2.2 made life easier >**
living creatures**<B2.2 beings>**
stay in peace **<B2.2 keep calm >**
in old times **<B2.2 the past >**
becoming contemporary **<B2.2 modern >** people.
at **house <B2.2 home >**.
spare **<B2.2 save>** their time for themselves
humanity **did great works <B2.2 had great achievements>**
developed <B2.2 increase > our knowledge
improved **<B2.2 brought >** us to space era.
put them on our knee**<B2.2 lap >** to use.
Group 3
wouldn't **expand<B2.2 advance>**
wash their clothes with their hands **<B2.2 hand-wash their clothes>**.
all of the world**<B2.2 the whole world>**.
wars used to be made **<B2.2 waged>** with
great machine **<B2.2 mechanical >**
inventions
all of the world **<B2.2 the whole world>**
morse **alphabet <B2.2 morse code >**
Too much of everything **<B2.2 anything >**
using transportatin **<B2.2 taking public transportation >**
these invention supply to be easy their lives **<B2.2 make their lives easier>**
have **eyes problems <B2.2 eye problems>**.
Group 4

2.3 **Arbitrary combinations and irreversible binomials**
Group 1
make easier their lives <B2.3 make their lives easier>
Group 2
like exactly< B2.3 exactly like > the women in media
used from 7 age to 70 age**< B2.3 age 7 to age 70 >**
made us allowed **< B2.3 allowed us>**
provide to access **<B2.3 access to >** different news or
Group 3
make easier our life **<B2.3 our lives easier >**
made easier our lives **<B2.3 made our lives easier>**
television is box of silly **< B2.3 silly box >**,
Without television, I can't imagine a home. **<B2.3>**
Group 1
its using **fast spread<B2.3 spread fast >** to the world.
Group 2
make easier our life **<B2.3 make our lives easier>**.
make easier our lives **<B2.3 make our lives easier>**
with the machine **using inventions<B2.3 invention usage>**
in astronomy section **<B2.3 the field of astronomy>**

APPENDIX- 9. (Continued) Participants' lexical errors categorized according to the error types in each group formed based on the participants' writing scores.

have affected incredibly**< B2.3 significantly affected >** our daily lives.
important as much as books**<B2.3 as important as books >**
have an impact on people positively **<B2.3 a positive impact on people >**.
spend our most of **<B2.3 most of our >** time
Can't do anything without inventions in time **<B2.3 in time without inventions>**.
make easir our life **<B2.3 make our life easier>**
started to begin **<B2.3 began to start >**

Group 4

every 3 people out of 5 **<B2.3 3 out of every 5 people >**
see the lives of each other**<B2.3 each other's lives>**.
explain in their mind's everything **<B2.3 everything in their mind >**

Group 3

the pollution of air**<B2.3 air pollution >**
Keeping clean our clothes **<B2.3 keeping our clothes clean>**
makes easier our life **<B2.3 our lives easier>**.
make easier our lives**<B2.3 make our lives easier**
made easier their lives. <B2.3 their lives easier>
makes easier the people's life**<B2.3 people's lives easier>**.
time of ours <B2.3 our time
the truth is the opposite **<B2.3 opposite is true >**
It **impacts especially <B2.3 especially impacts >** children negatively
under three-years-old children **<B2.3 children under three years old>**
use filtered internet **< B2.3 internet filters >**
far away thousands miles**<B2.3 thousands of miles away >**.
so easy and fast **<B2.3 quick and easy >**!
have a lot of cool **inventions upsides, downsides <B2.3 upsides, downsides to invetions >**,

Group 4

affected people indeed <B2.3 clearly affected people
depends on completely **<B2.3 completely on>** us.
Up to now from 20th century**< B2.3 from the 20th century up to now >**,

2.4 Preposition partners (Ommision, addition and substitution).

Ommission

Group 1

Group 2

express themselves <**B2.4 in >** the way actually they think <**B2.4 in >** the way their friends think.
<B2.4 around >the world
sitting <B2.4 on> a chair
looking **<B2.4 at>** a screen
used **<B2.4 for>** only calling
used **<B2.4 for>** 4-5 years
B2.4 on> internet.
provide the people <B2.4 with> good things.
communicate **<B2.4 with>** each other.
have to **keep <B2.4 up> with them**.

Ommission

Group 1

can be touch**<B2.4 in touch >** with their lack drugs**<B2.4 lack of drugs >**.
the past **<B2.4 in the past >**.

Group 2

Internet has a magnitude **<B2.4 of >** entertainment.
communicate **<B2.4 with >** anybody
think **<B2.4 think up >** very creative innovation
get out it**<B2.4 get out of it>**.
to **talk <B2.4 talk with>** someone
the answer **<B2.4 answer to >**

APPENDIX- 9. (Continued) Participants' lexical errors categorized according to the error types in each group formed based on the participants' writing scores.

create an easy communication **to <B2.4 for >**us
in our daily lives.television **<B2.4 at>** early ages.
depends <B2.4 on> how to use that inventions.
communicate **<B2.4 with>** eachother
In addition <B2.4 to> this,
< B2.4 in> wrongly way.
communicate **<B2.4 with>** each other.
wonders **< B2.4 wonder about >**technology
speak *with* their phones, not **<B2.4 with > other people**.

Group 3

adapted <B2.4 to> the global world.
< B2.4 in > everybody's *lifes*.
caring <**B2.4 about>** real people?
smiling <**B2.4 at >**
< talk <B2.4 to >their friends
talk their friends **by <B2.4 on>**mobile phone
In addition this, **<B2.4 addition to this >**,
easy to access **<B2.4 to>** any information
type it **< B2.4 type in >** main word,
<B2.4 in >science fiction movies
has a huge role **<B2.4 in>** our world.
be open-minded **<B2.4 open-minded regarding>**inventions and discoveries.
communicate <B2.4 communicate with> a hundered people in a minute.
chat <B2.4 chat with> and see them.
have a powerful effect **< B2.4 effect on > our people's lives**.
dreamed **<B2.4 of >**,
talked **<B2.4 about >** and
was lead **<B2.4 lead to >** great technologies.
took place < B2.4 in > last century
no need **<B2.4 need for >**teachers
live **<B2.4 on>** the other side of the world.
Enables people **<B2.4 with >** a choice
use these technological devices **<B2.4 in >** part of their life.
speak < B2.4 with > a person
don't **care <B2.4 about >** these small disadvantages
provides us <B2.4 with > valuable usefulness
listen**<B2.4 listen to >** music

Group 4

communicate **<B2.4 with>** each other
talk **<B2.4 to>** each other
play **<B2.4 with >** their friends
sit **<B2.4 on>** their armchair
provide us **<B2.4 with >** fast information
to connect**<B2.4 connect with >** the world now,

Addition

Group 1

Group 2

inventions had **risen up <B2.4 ~~up~~ >**
Being in **<B2.4 ~~in~~ >** safe
If you wonder **<B2.4 wonder about >**my idea
to communicate **<B2.4 with>** each other. get the news not only from our country but also **<B2.4 from >** the world
go **<B2.4 go to >** banks

Group 3

to go**<B2.4 go to >** second floor.
wait **<B2.4 wait for >** anything.
playing <B2.4 playing with > their toys
<B2.4 in > 20th **century**
People forgot to **speak <B2.4 to >** each other.
go**<B2.4 from >**one country to another in the world
listen <B2.4 listen to >
communicate **<B2.4 with>** people
watching /listening **<B2.4 listening to>** videos.
wait **<B2.4 wait for >** your letter
letter to arrive **<B2.4 from >** the person
use them **<B2.4 in > every aspect** of our lives
talk **<B2.4 to>** our friends face to face
find *yourselves* **bad situations < B2.4 in bad situations>**
connect **<B2.4 connect with>** people
about the world we **live <B2.4 live in**
even swear **<B2.4 swear at >**
speak<B2.4 speak with> each other
be **careful <B2.4 about**> **use** these inventions
<B2.4 in> our daily lives
<B2.4 during> the experiment.
leads us **<B2.4 to>** the last and most important inventionwho live**<B2.4 live in >** another part of the earth.
help man <B2.4 with> other issues
from internet, games, <**B2.4 to >** camera.
century which is easy to live**<B2.4 live in >**.
someone knocks your door**<B2.4 knocks on your door >** in the game
go**<B2.4 go to >** the library

Group 4

communicate <B2.4 communicate with> each other
connect **<B2.4 connect with >**each other

Addition

Group 1

APPENDIX- 9. (Continued) Participants' lexical errors categorized according to the error types in each group formed based on the participants' writing scores.

spend you time **by <B2.4 ~~by~~> sitting**
spend his/her time by **<B2.4 spend ....~~by~~>** just looking
need to<B2.4 need ~~to~~ > them
spend their time on the internet **by<B2.4 ~~by~~>** playing
affected us for< B2.4 affected us ~~for~~> worldwide,
impact on <B2.4 ~~on~~> our lives.

Group 3

despite **of <B2.4 ~~of~~ >** common belief
mostly **used** in **<B2.4 ~~in~~ >** *harmfully*
share everything **for** <**B2.4 ~~for~~ >** every day.
aware of **<B2.4 ~~of~~ >** that
change their feeling with **<B2.4 ~~with~~>** positively.
fear from **< B2.4 fear ~~from~~ >**
Reaching **~~to~~ <B2.4>** the world
impact on**< B2.4 impact ~~on~~>** people's lives.
reach to < B2.4 ~~to~~ > a modern
face with **<B2.4 face ~~with~~>** it

Group 4

acces to **< B2.4 access ~~to~~ >**
access to the world **at <B2.4 ~~at~~ >**anywhere,

Substitution

Group 1

learn more and fast **above< B2.4 about >** the future...
Throughout < B2.4 over >the last years,
surrounded **among<B2.4 by >** knowledge in the future.

Group 2

thought that **<B2.4 about >** which devices
in<B2.4 on > internet.
live **in <B2.4 on >** a deserted island
At < B2.4 In > the 20th century,
of <B2.4 related to> your interest
result to <B2.4 in> bad effect
use the television **to <B2.4 for>** education,
in <B2.4 at > work.
some **conflicts about <B2.4 over>** these aspects **with <B2.4 by >** using cell phone
travel **with <B2.4 via>** internet.
are **on<B2.4 in>** communication with each other
speak **with <B2.4 on >** their phones,
at <B2.4 in> their lives.
in< B2.4 on> TV, Internet
learn them **by <B2.4 from >** people
asocialization *on* **<B2.4 of>** people.

Group 3

replace all **over <B2.4 of >** the human beings' work
chatting **by <B2.4 via >** computers.
Begining **of <B2.4 from >** the 20th century
spend their time **in < B2.4 on >** online games
be famous **from <B2.4 on >**websites
call our friends **for <B2.4 on> private** days.
to **connect to < B2.4 with >** each other.
positive effect **at <B2.4 of >**
good **on <B2.4 for >** us.

Group 2

spent most of our time **by <B2.4 ~~by~~ >** using Internet
help us about**<B2.4 ~~about~~ >**
utilise from < B2.4 utilise ~~from~~ > the internet
entered **to <B2.4 ~~to~~ >**the stage.
it can cause to death**<B2.4 cause ~~to~~ death >**.
much more related **with <B2.4 to >** us.
has impacted on **<B2.4 ~~on~~ >** people's lives.
inventions that **impact on <B2.4 impact ~~on~~ >** people's lives.

Group 3

inventions significantly impacted on **<B2.4 impacted ~~on~~ >** people's lives.
needed to **<B2.4 needed ~~to~~>** inovations
a lot of **<B2.4 a lot ~~of~~ >**.
discuss on < B2.4 discuss ~~on~~> it.
despite to <B2.4 ~~to~~> the television.
decrease to reading rates **<B2.4 decrease ~~to~~** reading rates >

Group 4

In these days <B2.4 ~~In~~ these days >,
mention about <B2.4 mention ~~about~~ > electricity.

Substitution

Group 1

resulted **with <B2.4 in >** death,
feel disturbed **from <B2.4 by>** these situations
reletad equally **with <B2.4 to >** trade.

Group 2

in <B2.4 at >any time.
become addicted **for < B2.4 addicted to >**it.
helps us **in<B2.4 with >** the communications,
information and entertainment.
a *healthy* rate **at** growing everything **<B2.4 of growing everything >**
a touch **at <B2.4 of >** truth in it
tend to **<B2.4 toward >** discoveries?
instead of <B2.4 for >
give more time **to <B2.4 for >** our daily *issues*
In the history **<B2.4 throughout history >**
positive **effect to <B2.4 on>** our life

APPENDIX- 9. (Continued) Participants' lexical errors categorized according to the error types in each group formed based on the participants' writing scores.

be slave **of <B2.4 to >** technologies.
to communicate **to <B2.4 with>** someone.
used **for <B2.4 to>** keep up with
reason of <B2.4 reason for > this
in socialization **of < B2.4 in >**the 20th century.
take **in <B2.4 into >** consideration
limited with**<B2.4 to >**
take place to **<B2.4 of >**
released in**< B2.4 for >** the first time
on<B2.4 in > the other countries
communication to **<B2.4 with >**our friends
effects in**<B2.4 on >** our lives

Group 4

took a role **for < B2.4 in >**
ignore the effects **at <B2.4 of >** technology
played a role > for < B2.4 in > the daily of
connect people **by <B2.4 with >** unseen wires,
no attempt of humanbeings **to <B2.4 against >** nature is acceptable.
effect of the invention of airplane **to <B2.4 on>** their lives!

start **by<B2.4 with>** mobile phones.
Computer's divided **into<B2.4 over>** time;
personal computers and laptops.

Group 3

Throughout <B2.4 For > *centruies*
asked **to <B2.4 asked of >** people
spend time **for <B2.4 on >**
at<B2.4 in > 20th century
by many ways**<B2.4 in many ways >**.
with <B2.4 at > reasonable prices.
given **with <B2.4 via >**technological materials
by <B2.4 via > presentation
learned **by** this way **<B2.4 in this way >**
has negative effects **in <B2.4 on >**our lives.
are faced **to<B2.4 face >** obesity
on <B2.4 in > mathematics.
to travel **with <B2.4 by >** horses or camels
had radiation **effect to <B2.4 effect on>** human
communicating to**<B2.4 with >** people
have really great impact **in <B2.4 on>** our lives.
do other things in **<B2.4 on>** mobile phones
communicate to <B2.4 with> people
forget to**<B2.4 about >** television
to control ourselves **for<B2.4 from >** overuse it.
they forget **to <B2.4 about >**moving or walking.
By <B2.4 in > this way,
they take part **of <B2.4 in>** nearly all people's lives
has bad impact **in <B2.4 on>** most people's life.
in<B2.4 on> internet,
By**<B2.4 in >** this way
not in**<B2.4 on >** the same
the key **of <B2.4 to >**fun
Throughout the **<B2.4 Over >**time
human life **throughout** the time **<B2.4 over time>**

Group 4

inventions **on<B2.4 in >** people's lives.
been on**<B2.4 in >**demand.
addiction **of** comfort **<B2.4 addiction to comfort>**
Except from **<B2.4 except for >** World Wars,
do shopping **in<B2.4 on >** web sites
spend too much time **for <B2.4 on >** smart phones

APPENDIX- 9. (Continued) Participants' lexical errors categorized according to the error types in each group formed based on the participants' writing scores.

3RD YEAR STUDENTS

2.5. Idiomatic expressions

Group 1

Group 2

in spite of **<B2.5 making>** the easy lives.
all of the times. **<B2.5 of all time>**
has big role in **<B2.5 doing>** our assignment
cannot **<B2.5 cannot do >anything without internet**.
covers all of the world **<B2.5 the whole world>**
students *explore* **< B2.5 homework topic >** when teachers give homework

Group 3

life has become **a more liveable place <B2.5 life has become more liveable ~~place~~ >.**
could not **<B2.5 do> anything** spontanenously.
After **< B2.5 the invention of the>** internet,
< B2.5 were> desperately in search of
these breakthrough aids**<B2.5 breakthroughs >** like internet,
have internet and Wi-fi <B2.5 access >.

Group 4

played a role > for the **daily < B2.5 lives > of**

3. Connotative meaning

Group 1

Group 2

share even **their meals** <**B3 pictures of meals/food>**.
been so **<B3 very >** mechanical
With **<B3 without>** any doubt
has **too<B3 so>** many impacts on human life

Group 3

is **too <B3 so >**easy
time consuming **<B3 management>**
practice any course with online or internet
even **<B3 even though >** we have problems in our real worlds.

Group 4

talk **together <B3 to each other>**.

1ST YEAR STUDENTS

Group 1

living best times **<B2.5 having the best time>**
meal <B2.5 food> and shelter

Group 2

to do give **<B2.5 ~~do~~ give >** more time
led to the change one age **<B2.5 brought about a new age>**

Group 3

wouldn't be **as good as now < B2.5 as good as it is now >**.
<B2.5 to receive >his or her message
has **inevitable change <B2.5 caused inevitable change>**
children face to lose memory **<B2.5 face memory loss >**
early in the future<B2.5 in the near future>.
have not **<B2.5 had >** bad effect
entertain <B2.5 entertain ourselves> and

Group 4

distance **<B2.5 distance barrier>**

Group 1

our times is calling**<B3 known as >** *technology* era
these *invents* help us too much**<B3 so much >**.

Group 2

inventions and discoveries positively **<B3 definitely>** make a great change
very creative innovation to ease **<B3 simplify >** their life
previous **<B3 existing >**ones,

Group 3

The things which is discovered **<B3 invented >**
improved **<B3 advanced >** phones
Except<B3 aside from >
to get over**<B3 overcome >** their daily problems
struggled **<B3 strived>** for everything.
it affected of **<B3 determined>**

Group 4

playing games, **stalking <B3 following >** their friends,

APPENDIX- 9. (Continued) Participants' lexical errors categorized according to the error types in each group formed based on the participants' writing scores.

4 Stylistic errors

4.1 Verbosity

Group 1

compared to the others**<B4.1 >**.

Modern life has become so modern <B4.1>.

Group 2

people turn to half of the world that cannot move**<B4.1 become sedentary >**.

In conclusion, computers are the greatest invention of 20th century as its contribution **<B4.1>**.

practice any course with online or internet **<B4.1 online>**.

Unfortunately, teenagers, *people in middle*, boy and girls, that is everybody **< B4.1>** from all ages

practice any course **with online or internet <B4.1 online>**.

Cell phone is handy in terms of this aim**<B4.1 omit >** or

Group 3

re beneficial to help us **<B4.1 beneficial >**.

difficult information **that are hard to be reached <B4.1>**.

Group 4

They use telephone, cellphone, computer to communicate. They can easily *communicate* each other by means of computer, telephone, cellphone. <B4.1>

Another breakthrough of inventions is smart-phones by all means**<B4.1 >**.

Group 1

We called this stage as **<B4.1 >** ''technology era''

call anybody who is thousands of kilometres **away from us<B4.1 away>**.

this improvement show positive impact on the vehicle of transportion vehicle **<B4.1 >**.

Group 2

Therefore, our life started to improve flourish**< B4.1>**.

spoiled the belongings of the mother nature **<B4.1 spoiled the nature>** .

advantge that this advantge is so important that it **< B4.1 this advantage is so important it >**

they can come across harmful things which are containing violence. **<B4.1>**

all the *inventers* of them**<B4.1 omit >**.

Despite of the some risks**<4.1 despite the risks >**

it generates in control of professionals **< B4.1 It is generated by professionals>**.

Group 3

harmful in terms of health for eyes **<4.1 for eye health >**.

it *effects* especially negative 20th century**<B4.1>**

These inventions that have a minor place in our life have advantages and disadvantages in our life **<B4.1>** .**These inventions while making our life easier, these can have negative impact on our health and life as well**

these days computer is not that much**<B4.1 that >** appealing without the internet which is also another gigantic invention.

take advantages **<B4.1 >**

Group 4

Thirdly **and lastly<B4.1 >**, uses these inventions and discoveries everywhere, or every field **<B4.1>**,

4.2 Underspecification

Group 1

our service in our century **<B4.2 convenient and at hand in this century>**.

we *recreat* it whole. **<B4.2 >**

we've developed twice time power**<B4.2 developed the technology to use time twice as efficiently>**.

Group 1

past**<B4.2 in the past >**

wasted their time with**<B4.2 their time on >** new cell phones.

APPENDIX- 9. (Continued) Participants' lexical errors categorized according to the error types in each group formed based on the participants' writing scores.

3RD YEAR STUDENTS

the whole humanity lives**<B4.2 history of humanity >**.
Entrance to the other worlds is open all the way. **<B4.2 >**

Group 2

according to them **<B4.2 based on their possible reactions>**.
Because they're aware of their friends throught internet**<B4.2>**
of exclusion among friends**<B4.2 being excluded by friends>**,
in terms of **physically <B4.2 physical appearance>**,
grow up by falling with their mothers and their care**<B4.2 >**.Hence, the idea of living with robots could not affect people's lives.
have connection inseperably**<B4.2 permanent connection >**.
there is no doubt that it helped them definitely in terms of spending time easily **<B4.2>** and learning what was going on earth as it is today.
it was the time of a series of war, the difference among the countries which were powerful and the less powerful ones were were now much more easier to differentiate them from each other**<B4.2 during war time technology made the distinction between the powerful countries and those which were less powerful much clearer>**.
When the mobile phones were invented, it became a new **< B4.2 a new era >**for these people.
People could communicate with each other for example; forces of an army of a family **<B4.2>** who tried to find each other who lost themselves because of sudden bombing.
it was revolution**<B4.2 revolutionized the world**
advantages are more than every device**<B4.2 outweigh them >**.
Phone, internet and applications are connected themselves **<B4.2>**.
show **<B4.2 >** themselves with their phones.
however some regret the realities **<B4.2 >**.
without seen miles <4.2 despite being miles away>
take the people in the same culture **<B4.2 cause people to all become the same culture >**.
and having the same culture people **<B4.2 having people all become the same culture >**
when we look back to first point becoming lazy too many do not try to earn but try to spend. **<B4.2>**
find location where she get reach **<B4.2 can go >**
Speaking for them <B4.2 means > chats on the internet
everthing from **internet and service <B4.2>**

1ST YEAR STUDENTS

Group 2

communicates people each other**<B4.2 enables people to comunnicate with each other >** very fast.
past**<B4.2 in the past>**.
Human beings came all the way from almost nothing easy<B4.2 >.
At the end, we have to learn how to **control <B4.2 control ourselves> and our borders <B4.2 <know our limits.**
should also *careful* about our children **<B4.2 as >**
Like TV, mobile phones, washing machines, and fridge we can do almost all of the our work**<B4.2 >**.
TV came with reality shows, funny shows and, talkshows which made our life <**B4.2 which our lives now revolve around>**.
Within the phone computer**<B4.2 >** also has a
carry on to produce**<B4.2 continue to create new things>**.
shows themselves on **thing < B4.2 TV programs>** trying to get married.

Group 3

To improve, they started to search **<B4.2 search about different topics....>** and read. Day by day, inventions and discoveries increased.
Finally, thanks to inspirations **<B4.2>** people understood that inventions and discoveries were necessary for them.
computers harm our live more than **profit benefits <B4.2 benefit them>**.
a truth **<B4.2 fact that >** more than 70% of people who use computers claim that this invention has many advantages if you use consciously.
People have been producing lots of devices or so on**<B4.2 >** for centuries.
Radio is **one of the most invention of the 20th century <B4.2 >**.
vision problem that a direct connection between TV**<B4.2 that is directly connected to the TV >**.
past **<B4.2 in the past >**.
Telephones don't affect people only in a bad way but also they help people **communicate who have distance between each other**. **<B4.2 Who have great distances between them communicate with each other>**

APPENDIX- 9. (Continued) Participants' lexical errors categorized according to the error types in each group formed based on the participants' writing scores.

However, **children can use these inventions with minimal <B4.2 the amount of time children spend using these inventions is minimal>** time, so children get no harm…
They are affected profound effect. **< B4.2 People are affected negatively >**
asocialization *on* people <B4.2 people to become antisocial>
as well as Isaid in other example <B4.2 as aforementioned>
covers all of the world like a spider **<B4.2 spider web>**.

Group 3

Moreover we are consuming many things< B4.2>
So no arguable to say **< B4.2 one cannot argue >** that they are best for us.
have covered network system **<B4.2 are equipped with computers>**.
for being easy and funny their lives. **< B4.2 making their lives easier and more fun>.**
I think in the future, robots **take place in business life instead of people. <4.2 take place of people in business life ~~instead of people.~~>**
there are lots of at this century **<B4.2 there are lot of inventions in the this century >**.
to search even vital subject **< B4.2 >** on the internet
rare that people can spend time **<B4.2 rare to see people spending time >**
Humans are waiting what the next one is. **<B4.2 to see what comes next >**
The answer is people who are addicited to internet eventually be developed because internet somehow spoils us**<B4.2 >**.
thought that how was the cell phone**<B4.2 thought about what the cell phone was like >**
paid attention to their aims**< B4.2 if we are not blind to their purposes>**,
pioneered**<B4.2 brought advancements >** for all people.
It is because of our using phone<B4.2>.
are minority thinking**< B4.2 is a minority who thinks that >** inventions and

Group 4

travelling far more distances **<B4.2 >** wasn't enough,
proved by the details of statistics of experts **<B4.2 this data is given by statisticians >**,
social media now is another places for the space**<B4.2 >**.
Even though, social media is such beneficial invention for better use **< B4.2 >**.
away from us**< B4.2 far away from us >**.
instead of carpe diem**<B4.2 siezing the day >**.
By looking this way <b4.2 By looking at it this way > it has good impact.
give their personal information, money for being rich or marrying **<B4.2>** .
Those *are required* no effect**<B4.2 >**.
especially **to inform <B4.2 to be informed and inform others>.**

Group 4

There wasn't **distance via phone anymore <B4.2 distance barrier anymore thanks to phones >**.
It is a certain fact that inventions and discoveries of 20th century affect our lives in terms of some benefits **<B4.2 >**.
surfing on **social medias**. **< B4.2 social media sites >**
even **<B4.2 even though >** they have distances between them.
beneficial rather than high speed **<B4.2 more beneficial than reaching high speed>**

APPENDIX-10. The taxonomy with the number of lexical errors in different groups based on the participants' writing scores

FORMAL ERRORS

		1st year participants			3rd year participants			total participants		
ERROR CATEGORIE	WRITING GROUPS	number of participant	number of errors	%	number of participants	number of errors	%	number of participants	number of errors	%
11										
	1	3	9	18	1	1	2	4	10	9
	2	18	20	39	19	26	51	37	46	41
	3	29	29	57	23	19	37	52	48	43
	4	5	2	4	9	5	10	14	7	6
12										
	1	3	2	100	1	0	0	4	2	50
	2	18	0	0	19	1	50	37	1	25
	3	29	0	0	23	1	50	52	1	25
	4	5	0	0	9	0	0	14	0	0
13										
	1	3	1	3	1	0	0	4	1	2
	2	18	12	40	19	5	42	37	17	41
	3	29	17	57	23	4	33	52	21	50
	4	5	0	0	9	3	25	14	3	7
14										
	1	3	0	0	1	0	0	4	0	0
	2	18	6	55	19	3	27	37	9	41
	3	29	5	46	23	6	55	52	11	50
	4	5	0	0	9	2	18	14	2	9
21										
	1	3	0	0	1	0	0	4	0	0
	2	18	3	100	19	4	67	37	7	78
	3	29	0	0	23	1	17	52	1	11
	4	5	0	0	9	1	17	14	1	11
22										
	1	3	0	0	1	0	0	4	0	0
	2	18	1	100	19	0	0	37	1	100
	3	29	0	0	23	0	0	52	0	0
	4	5	0	0	9	0	0	14	0	0
23										
	1	3	7	12	1	3	4	4	10	8
	2	18	26	44	19	33	49	37	59	47
	3	29	20	34	23	25	37	52	45	35
	4	5	6	10	9	7	10	14	13	10
31										
	1	3	7	17	1	2	6	4	9	12
	2	18	9	22	19	10	29	37	19	25
	3	29	22	54	23	19	54	52	41	54
	4	5	3	7	9	4	11	14	7	9
32										
	1	3	0	0	1	1	8	4	1	4
	2	18	4	33	19	5	39	37	9	36
	3	29	8	67	23	5	39	52	13	52
	4	5	0	0	9	2	15	14	2	8
33										
	1	3	4	21	1	2	13	4	6	17
	2	18	7	37	19	6	38	37	13	37
	3	29	7	37	23	6	38	52	13	37
	4	5	1	5	9	2	13	14	3	9
34										
	1	3	2	29	1	0	0	4	2	29
	2	18	1	14	19	0	0	37	1	14
	3	29	4	57	23	0	0	52	4	57
	4	5	0	0	9	0	0	14	0	0
35										
	1	3	1	10	1	0	0	4	1	8
	2	18	7	70	19	0	0	37	7	54
	3	29	2	20	23	2	67	52	4	31
	4	5	0	0	9	1	33	14	1	8

APPENDIX-10. (Continued) The taxonomy with the number of lexical errors in different groups based on the participants' writing scores

		SEMANTIC ERRORS								
		1st year participants			3rd year participants			total participants		
ERROR CATEGORIES	WRITING GROUPS	number of participants	number of errors	%	number of participants	number of errors	%	number of participants	number of errors	%
11										
	1	3	0	0	1	0	0	4	0	0
	2	18	10	71	19	3	50	37	13	65
	3	29	4	29	23	1	17	52	5	25
	4	5	0	0	9	2	33	14	2	10
12										
	1	3	0	0	1	0	0	4	0	0
	2	18	0	0	19	0	0	37	0	0
	3	29	0	0	23	3	100	52	3	100
	4	5	0	0	9	0	0	14	0	0
14										
	1	3	3	3	1	1	1	4	4	3
	2	18	32	35	19	19	28	37	51	32
	3	29	52	57	23	36	52	52	88	55
	4	5	5	5	9	13	19	14	18	11
21										
	1	3	6	6	1	4	2	4	10	4
	2	18	37	35	19	56	31	37	93	32
	3	29	55	52	23	97	53	52	152	53
	4	5	7	7	9	26	14	14	33	12
22										
	1	3	0	0	1	0	0	4	0	0
	2	18	15	58	19	5	23	37	20	42
	3	29	11	42	23	13	59	52	24	50
	4	5	0	0	9	4	18	14	4	8
23										
	1	3	1	4	1	1	6	4	2	5
	2	18	7	30	19	5	29	37	12	30
	3	29	12	52	23	9	53	52	21	53
	4	5	3	13	9	2	12	14	5	13
24										
	1	3	6	6	1	3	3	4	9	4
	2	18	30	27	19	45	38	37	75	33
	3	29	64	58	23	58	48	52	122	53
	4	5	10	9	9	14	12	14	24	10
25										
	1	3	2	17	1	0	0	4	2	8
	2	18	1	8	19	7	54	37	8	32
	3	29	8	67	23	5	39	52	13	52
	4	5	1	8	9	1	8	14	2	8
3										
	1	3	2	17	1	0	0	4	2	10
	2	18	3	25	19	4	50	37	7	35
	3	29	6	50	23	3	38	52	9	45
	4	5	1	8	9	1	13	14	2	10
41										
	1	3	2	12	1	2	18	4	4	14
	2	18	8	47	19	5	46	37	13	46
	3	29	5	29	23	2	18	52	7	25
	4	5	2	12	9	2	18	14	4	14
42										
	1	3	2	7	1	5	10	4	7	9
	2	18	10	32	19	26	52	37	36	44
	3	29	14	45	23	14	28	52	28	35
	4	5	5	16	9	5	10	14	10	12