

**REPUBLIC OF TURKEY
ÇUKUROVA UNIVERSITY
THE INSTITUTE OF SOCIAL SCIENCES
DEPARTMENT OF ENGLISH LANGUAGE TEACHING**

**LEXICAL VERBS IN ACADEMIC WRITINGS OF TURKISH LEARNERS
OF ENGLISH AS A SECOND LANGUAGE: A CORPUS BASED STUDY**

Fatih Ünal BOZDAĞ

MASTER OF ARTS

ADANA / 2014

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Supervisor: Prof. Dr. Hatice SOFU

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ÖZET**YABANCI DİL OLARAK İNGİLİZCE ÖĞRENEN TÜRK
ÖĞRENCİLERİN AKADEMİK YAZILARINDA SÖZCÜKSEL
EYLEMLER: BİR DERLEM TABANLI ÇALIŞMA****Fatih Ünal BOZDAĞ****Yüksek Lisans Tezi, İngiliz Dili Eğitimi Anabilim Dalı****Danışman: Prof. Dr. Hatice SOFU****Haziran 2014, 143 sayfa**

Bu çalışmanın amacı yabancı dil olarak İngilizce öğrenen Türk öğrencilerin akademik yazılı anlatımlarındaki aradil özelliklerini araştırmaktır. *Akademik Anahtar Kelime Listesi*'ndeki (AKL) (Paquot, 2010) sözcüksel eylemlerin yabancı dil olarak İngilizce öğrenen Türk öğrenciler tarafından edinimi ve kullanımı incelenecektir. *Akademik Anahtar Kelime Listesi* akademik metinlerin özelliklerini belirleyen alan bağımsız sözcükleri kapsar ve metinlerin temel akademik taslaklarını tanımlar. Dört temel sözcüksel ulam (isimler, fiiller, zarflar ve sıfatlar) altında tanımlanan bu sözcüklerin edinim seviyesinin yazarlara özgü sözcük-dil bilgisi göndermelerine yorumlamanın yanı sıra öğrencilerin akademik kelimelerinin sözcüksel birikimlerini açığa çıkaracağı varsayılmaktadır. Sözcüksel eylemlerin ayrıntılı incelemesi araştırmacıların yabancı dil olarak İngilizce öğrenen Türk öğrencilerin aradil özelliklerini tanımlamalarına yardımcı olabilir. Bu çalışmanın yöntemi *Akademik Anahtar Kelime Listesi*'nin eylemlerinin bir derlem tabanlı incelemesini yürütmeyi içermektedir.

Bu derlem tabanlı çalışmanın amacına yönelik olarak, öncelikle, iki derlemdeki eylemlerin kullanım seviyelerine göre sıklık tabanlı liste hazırlayarak öğrencilerin genel sözcüksel görünümünü tanımlamak için TICLE (Uluslararası Öğrenci Derlemi'nin alt derlemi Uluslararası Türk Öğrenci Derlemi) ve LOCNESS (The Louvain Corpus of Native English Essays) derlemlerinin karşılaştırması ele alınmıştır. İkinci seviyede, en yüksek sıklığa sahip on sözcüğün ayrıntılı olarak örüntüsel dil bilgisi (Pattern Grammar) yaklaşımı çerçevesinde incelenmiştir.

Elde edilen sonuçlar anadili İngilizce olan konuşmacılara oranla anadili İngilizce olmayan öğrenciler tarafından kullanılan belirli kelimelerin bazılarının az kullanımını, bazılarının ise aşırı kullanımını göstermiştir. Bu araştırmanın sonucunda öğrencilerin bu belirli sözcüksel öğelerin içsel bilgi seviyesinin, akademik fiillerin dizge farkındalıklarının ve bu öğeleri işlevsel-sözcüksel dilbilgisi kullanımı adına anadili İngilizce olan öğrencilere oranla anlamlı farklılıklar bulunmuştur.

Anahtar Kelimeler: Aradil, Akademik Anahtar Kelime Listesi, sözcük-dilbilgisi, derlem; TICLE; LOCNESS.

ABSTRACT**LEXICAL VERBS IN ACADEMIC WRITINGS OF TURKISH LEARNERS
OF ENGLISH AS A SECOND LANGUAGE: A CORPUS BASED STUDY****Fatih Ünal BOZDAĞ****Master of Arts, English Language Teaching Department****Supervisor: Prof. Dr. Hatice SOFU****June 2014, 143 pages**

The purpose of this paper is to investigate the interlanguage features of Turkish EFL learners in academic written discourse. Acquisition and usage of lexical verbs of *Academic Keyword List (AKL)* (Paquot, 2010) by Turkish EFL learner will be analysed. AKL covers the non-domain specific words which entitle the characteristics of academic texts and outline the basic academic sketch of the texts. It is assumed that the level of acquisition of these words that are defined under four basic lexical categories (nouns, verbs, adverbs and adjectives) will reveal the students' lexical repertoires of academic vocabularies as well as interpreting lexico-grammatical attributes specific to writers. Detailed analysis of lexical verbs may help researchers to define interlanguage features of Turkish EFL learners. The scope of this study includes conducting a corpus based analysis of verbs of AKL.

For the purpose of this corpus based study, at the first level, comparison of TICLE (Turkish sub-corpus of International Corpus of Learner English) and the LOCNESS (The Louvain Corpus of Native English Essays) corpus was utilised to define general lexical profile of the learners by preparing frequency based list according to usage levels of the verbs in two corpora. At the second level, a detailed analysis of 10 verbs with the highest frequency was conducted within the frame of Pattern Grammar approach.

Results indicate the overuse of some specific words by non-native students while some others are underused in comparison to native speakers of English. This investigation revealed the levels of students' implicit knowledge of these particular lexical items, their awareness of register of academic verbs and to what extent they are able to put in use these items within the frame of functional lexico-grammatical usage.

Key Words: Interlangue, Academic Keyword List, lexico-grammar, corpus; TICLE; LOCNESS.

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TABLE OF CONTENTS

	Page
ÖZET	iii
ABSTRACT	v
ACKNOWLEDGEMENTS	vii
LIST OF ABBREVIATIONS	xi
LIST OF TABLES	xii
LIST OF FIGURES	xv
LIST OF APPENDICES	xvii

CHAPTER I

INTRODUCTION

1.1. General Background.....	1
1.2 Corpus Linguistics	1
1.3. Corpora and Grammar.....	2
1.4. Research Background.....	3
1.5. Statement of the Problem.....	4
1.6. Purpose of the Study	5
1.7. Research Questions	5
1.8. Limitation of the Study	6
1.9. Operational Definitions.....	6

CHAPTER II

REVIEW OF LITERATURE

2.0. Introduction	
2.1. Corpus Linguistics	8
2.2.1. Corpus Linguistics and Corpora.....	8
2.2.2. Learner Corpora and Contrastive Interlanguage Analysis	12
2.3. Lexical Approaches to Grammar	16
2.3.1. Introduction	16
2.3.2. Corpus research at the lexis-grammar interface: Major strands and Pattern Grammar	16

2.4. Academic Writing	25
2.5. Academic Vocabulary and Academic KeyWord List.....	26

CHAPTER III

METHODOLOGY

3.0. Introduction	29
3.1. Data Analysis Procedures	29
3.2. Instruments and Data.....	30
3.2.1. Learner Corpus "ICLEv2"	31
3.2.1.1. Turkish Subcorpus of ICLEv2 "TICLE"	32
3.2.2. Reference Corpus "LOCNESS"	33
3.2.3. Sketch Engine Background	33
3.2.4. Wmatrix Background	34
3.2.5. WordNet	34
3.3. Frequency in Corpus Studies	35
3.4. Log-Dice	36
3.5. Log-Likelihood	37

CHAPTER IV

FINDINGS AND DISCUSSION

4.0. Introduction	39
4.1. Results	39
4.1.1. Overall frequency analysis of AKL Verbs Across Both Corpora.....	39
4.2. Top 10 AKL Verbs in TICLE and LOCNESS.....	41
4.3. Pattern analysis of AKL verb with high frequency	45
4.3.1. The Verb CAUSE and its Grammatical Behaviour in Both Corpora	45
4.3.2. The Verb SHOW and its Grammatical Behaviour in Both Corpora.....	52
4.3.3. The Verb CONSIDER and its Grammatical Behaviour in Both Corpora	60
4.3.4. The Verb SUFFER and its Grammatical Behaviour in Both Corpora.....	68
4.3.5. The Verb PROVIDE and its Grammatical Behaviour in Both	73
4.3.6. The Verb STUDY and its Grammatical Behaviour in Both Corpora	79
4.3.7. The Verb PREVENT and its Grammatical Behaviour in Both Corpora	86

4.3.8. The Verb CREATE and its Grammatical Behaviour in Both Corpora.....	92
4.3.9. The Verb APPLY and its Grammatical Behaviour in Both Corpora.....	98
4.3.10. The Verb SOLVE and its Grammatical Behaviour in Both Corpora.....	103
4.4. Discussion	108

CHAPTER V

CONCLUSION

5.0. Introduction.....	111
5.1. Conclusion.....	111
5.2. Implication for English Language Teaching.....	114
5.3. Suggestion for Further Studies.....	114
REFERENCES.....	118
APPENDICIES.....	125

LIST OF ABBREVIATIONS

BNC	: British National Corpus
CA	: Contrastive Analysis
CIA	: Contrastive Interlanguage Analysis
CL	: Corpus Linguistics
EFL	: English as a Foreign Language
ELT	: English Language Teaching
ESL	: English as a Second Language
ICLE	: International Corpus of Learner English
L1	: First (native) Language
L2	: Second Language
LC	: Learner Corpus
LL	: Log-likelihood
LOCNESS	: Louvain Corpus of Native English Essays
NL	: Native Language
NNS	: Non-Native Speakers
NS	: Native Speakers
SLA	: Second Language Acquisition
TICLE	: Turkish International Corpus of Learner English

LIST OF TABLES

	Page
Table 1. Overall comparative distributions of AKL verbs on both corpora.....	41
Table 2. LL ratio of AKL verbs used in both corpora.....	42
Table 3. Overall frequencies of top 10 AKL verbs in both corpora.....	44
Table 4. Log likelihood result of the verb cause	45
Table 5. Overall patterns of the AKL verb cause used in both corpora	46
Table 6. Nouns and their Shared Semantic Frames of V n pattern of cause in both Corpora	49
Table 7. Nouns and their Distinctive Semantic Frames of V n pattern of CAUSE in TICLE	50
Table 8. Nouns and their Distinctive Semantic Frames of V n pattern of CAUSE in LOCNESS.....	51
Table 9. Log likelihood result of the verb show.....	52
Table 10. Overall patterns of the AKL verb show used in both corpora.....	53
Table 11. Nouns and their Shared Semantic Frames of V n pattern of show in both Corpora	57
Table 12. Nouns and their Distinctive Semantic Frames of V n pattern of Show in TICLE.....	58
Table 13. Nouns and their Distinctive Semantic Frames of V n pattern of Show in LOCNESS	59
Table 14. Log likelihood result of the verb consider.....	60
Table 15. Overall patterns of the AKL verb consider used in both corpora	61
Table 16. Nouns and their Shared Semantic Frames of V n pattern of consider in both Corpora	65
Table 17. Nouns and their Distinctive Semantic Frames of V n pattern of Consider in TICLE.....	66
Table 18. Nouns and their Distinctive Semantic Frames of V n pattern of Consider in LOCNESS	67
Table 19. Log likelihood result of the verb suffer.....	69
Table 20. Overall patterns of the AKL verb suffer used in both corpora.....	69
Table 21. Nouns and their Shared Semantic Frames of patterns selected of Suffer in both Corpora	71

Table 22. Nouns and their Shared Distinctive Frames of patterns selected of Suffer in TICLE.....	72
Table 23. Nouns and their Shared Distinctive Frames of patterns selected of Suffer in LOCNESS	7
Table 24. Log-likelihood result of the verb provide.....	74
Table 25. Overall patterns of the AKL verb provide used in both corpora.....	74
Table 26. Nouns and their Shared Semantic Frames of V n pattern of provide in both Corpora.....	76
Table 27. Nouns and their Distinctive Semantic Frames of V n pattern of provide in TICLE.....	77
Table 28. Nouns and their Distinctive Semantic Frames of V n pattern of provide in LOCNESS	78
Table 29. Log likelihood result of the AKL verb study	80
Table 30. Overall patterns of the AKL verb study used in both corpora	80
Table 31. Nouns and their Shared Semantic Frames of V n pattern of study in both Corpora.....	83
Table 32. Nouns and their Distinctive Semantic Frames of V n pattern of study in TICLE.....	84
Table 33. Nouns and their Distinctive Semantic Frames of V n pattern of study in LOCNESS	85
Table 34. Nouns Collocated with other patterns of the AKL verb study and their Semantic Frames.....	86
Table 35. Log-likelihood result of the verb prevent.....	87
Table 36. Overall patterns of the AKL verb prevent used in both corpora.....	87
Table 37. Nouns and their Shared Semantic Frames of V n pattern of prevent in both Corpora.....	89
Table 38. Nouns and their Distinctive Semantic Frames of V n pattern of prevent in TICLE.....	90
Table 39. Nouns and their Distinctive Semantic Frames of V n pattern of prevent in LOCNESS	91
Table 40. Log likelihood result of the verb create.....	92
Table 41. Overall patterns of the AKL verb create used in both corpora	93
Table 42. Nouns and their Shared Semantic Frames of V n pattern of create in both Corpora.....	95

Table 43. Nouns and their Distinctive Semantic Frames of V n pattern of create in TICLE.....	96
Table 44. Nouns and their Distinctive Semantic Frames of V n pattern of create in LOCNESS	97
Table 45. Log likelihood result of the verb apply	99
Table 46. Overall patterns of the AKL verb apply used in both corpora	99
Table 47. Nouns and their Shared Semantic Frames of V n pattern of apply in both Corpora	101
Table 48. Nouns and their Distinctive Semantic Frames of V n pattern of apply in TICLE.....	102
Table 49. Nouns and their Distinctive Semantic Frames of V n pattern of apply in LOCNESS	103
Table 50. Log likelihood result of the verb apply	104
Table 51. Overall patterns of the AKL verb solve used in both corpora	104
Table 52. Nouns and their Shared Semantic Frames of V n pattern of solve in both Corpora	106
Table 53. Nouns and their Distinctive Semantic Frames of V n pattern of solve in TICLE.....	107
Table 54. Nouns and their Distinctive Semantic Frames of V n pattern of solve in LOCNESS	107

LIST OF FIGURES

	Page
Figure 1. ICLE task and learner variable	32
Figure 2. Overall frequency of AKL verbs used in both corpora	40
Figure 3. Concordance Lines for V n pattern of cause in TICLE	47
Figure 4. Concordance Lines for V n pattern of cause in LOCNESS.....	47
Figure 5. Concordance Lines of V-ed and V pro_object patterns of cause in TICLE ..	48
Figure 6. Concordance Lines of V-ed and V pro_object patterns of cause in LOCNESS	48
Figure 7. Concordance lines of V n pattern of show in TICLE	54
Figure 8. Concordance lines of V n pattern of show in LOCNESS.....	54
Figure 9. Concordance lines of V pro_object pattern of the verb show in TICLE	55
Figure 10. Concordance lines for V pro_object pattern of show in LOCNESS	55
Figure 11. Concordance lines for V to(pp) pattern of show in TICLE	55
Figure 12. Concordance lines for V wh compl. in LOCNESS	56
Figure 13. Concordance lines for the pattern V n of consider in TICLE.....	62
Figure 14. Concordance lines for the pattern V n of consider in LOCNESS	62
Figure 15. Concordance lines for the pattern V adj compl. of the verb consider in TICLE.....	63
Figure 16. Concordance lines for the pattern V adj compl. of the verb consider in LOCNESS	63
Figure 17. Concordance lines for the pattern V as(pp) of the verb consider in TICLE	64
Figure 18. Concordance lines for the pattern V wh compl. of the verb consider in LOCNESS	64
Figure 19. Concordance lines for the pattern V n of the AKL verb suffer in TICLE... 70	70
Figure 20. Concordance lines for the pattern V n of the AKL verb suffer in LOCNESS	70
Figure 21. Concordance lines for the pattern V from(pp) of AKL the verb suffer in TICLE.....	71
Figure 22. Concordance lines for the pattern V of the AKL verb suffer in LOCNESS	71
Figure 23. Concordance lines for the V n pattern of the AKL verb provide in TICLE	75
Figure 24. Concordance lines for the V n pattern of the AKL verb provide in LOCNESS	75

Figure 25. Concordance lines for the V pattern of the AKL verb study in TICLE.....	81
Figure 26. Concordance lines for the V n pattern of the AKL verb study in TICLE....	82
Figure 27. Concordance lines for the V n pattern of the AKL verb study in LOCNESS	82
Figure 28. Concordance lines for the pattern V for(pp) and V to-inf of the AKL verb study in TICLE.....	83
Figure 29. Concordance lines for the patter V n of the AKL verb prevent in TICLE ..	88
Figure 30. Concordance lines for the pattern V n of the AKL verb prevent in LOCNESS	8
Figure 31. Concordance lines for the pattern V pro_object of the AKL verb prevent in TICLE.....	89
Figure 32. Concordance lines for the patter V n of the AKL verb create in TICLE.....	94
Figure 33. Concordance lines for the patter V n of the AKL verb create in LOCNESS	94
Figure 34. Concordance lines for the patter V n of the AKL verb create in LOCNESS	94
Figure 35. Concordance lines for the pattern V n of the AKL verb apply in TICLE .	100
Figure 36. Concordance lines for the pattern V n of the AKL verb apply in LOCNESS	100
Figure 37. Concordance lines for the pattern V to(pp) of the AKL verb apply in TICLE	101
Figure 38. Concordance lines for the pattern V n of the AKL verb solve in TICLE..	105
Figure 39. Concordance lines for the pattern V n of the AKL verb solve in LOCNESS	105

LIST OF APPENDICES

	Page
Appendix 1	123
Appendix 2	127

CHAPTER I

INTRODUCTION

1.1. General Background

1.2 Corpus Linguistics

Though there are various definitions of what a linguistic corpus is, general acceptance is that corpus is “a collection of texts or parts of texts upon which some general linguistic analysis can be conducted” (Meyer 2002, xi). Corpus, (plural; corpora) is the collection of computer readable texts which are compiled according to clear-cut criteria so as to capture to essence of a language or of a variety of language. In this sense, basic principle of corpus linguistics and corpus studies is to analyse chunks of naturally occurring language structures which are disregarded by traditional sense of linguistics inquiries, at least up until recently. Gathering momentum with advances in computer technology, corpus studies, as a method of conveying research, are now being used in not only linguistics and language studies but in other language related studies from literal criticism to artificial intelligence.

Corpus has brought various insights to language studies. Various domains from speech analysis to investigation of written mediums to changes in languages over the time or exploration of usage based grammars have benefit from corpus based researches. However, exploration of authentic language specifically text based investigation of language, which is main paradigm of corpus linguistics, has facilitated new approaches and theories of linguistic descriptions to be emerged. Putting lexis in the center of language inquiries, concept of grammatical explanation has changed from traditional sense of words and grammar as distinctive units to unification of both.

In addition to application of corpus to language studies, second language acquisition and foreign language teaching have also introduced a new direction in the theory. Foremost, utilises of corpus studies to language teaching have enabled collecting learner corpora, which are computer stored learner languages. As Granger (2002) states, both second language acquisition (henceforth SLA) and foreign language teaching (henceforth FLA) benefit from learner corpora which provide new type of data

to both field. This new type of data is to help teachers or researchers to analyse learners' productions and accordingly their interlanguage development. On the other hand, before widespread use of corpus studies, many sources for EFL learners were based on researchers, teachers or native speakers' intuitions about use of language in the given context. Additionally, learners' productions in term of written or spoken mediums were analysed based on the teachers' explicit language knowledge if he or she was a non-native. However, now corpus studies, along with providing an empirical basis for checking intuitions about language, are able to provide authentic and reliable sources which helping both teachers and learner.

1.3. Corpora and Grammar

Corpus based grammar studies are relatively new phenomena to the field. Due to the natural methodological tendencies in corpus linguistics, lexical items have been the pivot of corpus based inquires so far. Therefore, as acknowledged by Stefanowitsch and Gries, "corpora are accessed via word forms, making them a natural choice for a focal point around which observations are made and theories are built (2008, p.1). Investigation of lexis has been thought to be the main motivation behind corpus based studies. Eventually, extensive focus on individual lexical item's grammatical behavior has undoubtedly inspired the lexical based grammatical descriptions.

Presumably, majority of corpus based studies have dealt with the lexical related investigations. Meanwhile, rapid development of computer technology and computer based corpus studies have enabled advances in parsing, tagging and grammatical annotation of corpora. Advances in grammar oriented corpus studies have evidently resulted in contriving new theories inspired from the relationship between form and meaning available in huge collections of text, which approaching lexis and grammar as inseparable units.

In this view, many studies in an attempt to form a common ground to lexis-grammar interface have been conducted with various explanations and implications. (Sinclair, 1996, 2000, 2004; Halliday, 1994, 2013; Gross, 1986; Hudson, 1990, 2007; Hunston and Francis, 2000; Stefanowitsch and Gries 2003; Hoey, 2005; Goldberg, 2006). Despite their distinctive manifestation to the theory, all of those studies listed

above stem from contradictions to traditional grammar which lines a strict divergence between word and grammar discriminating syntagmatic and pragmatic aspect of language (McEnery and Gabrielatos, 2006).

1.4. Research Background

As stated by Hunston and Francis (1998, p. 48) due to “widespread use of electronically-stored corpora among teachers and researchers alike, there is a growing expectation that descriptions of language will be based on quantities of authentic data rather than on a course writer's intuitions and/or language prejudices.” In this sense, unlike traditional view of syntax and lexis separating these two sharply, usage based approaches to grammatical description of individual words aim to provide explanations to grammatical behavior of words based on their relations to each other.

Thus, Hunston & Francis (2000) suggest a view of phraseology-based grammar introducing the term *pattern* as a descriptive tool to syntax-lexis continuum. This approach assumes that each word and its relation to other words in a context contribute to its meaning and form. Each pattern of an individual lexical item carries various senses of peculiar meaning with its distinct syntactic construction.

In the sense of context depended lexical choices, hence it is to be assumed that certain words, their patterns and semantic extensions should be motivated to be used in particular contexts. Accordingly, writers express certain concepts in significant ways based on their intensions, topic of text or register they address. One case for such an approach is academic writing which due to its nature, requires precise constrains such as nominalisation of verbs, preference of passive voice, use of discourse markers as well as use of specified vocabulary and etc.

English motivated being a lingua franca for international communication, and its teaching for academic writing has currently growing interest because, students from various academic disciplines are required to write and publish their work in this language to achieve their goals in international academic settings. Additionally, developing the required skills is not to develop writing skill only, yet learning academic discourse related lexical items and their grammatical behavior in text may assist students to read and understand those texts written in this particular genre. For this

purposes, several studies seeking to improve academic language skills in English have been conducted. Particularly, of these works, few of them are on preparing lists of words that are common in those settings (Coxhead, 2001; Paquot, 2010). Preparing word lists including primed lexical items by writers of academic texts is aimed to help learners of English to acquire an academic stance, as well providing a set of ready to use words which may outline the academic sketch of texts.

1.5. Statement of the Problem

Second language writers, especially writers with low proficiency levels demonstrate lack of presenting rich writing literacy and have difficulties in expressing sense of diversified ideas (Kraples, 1990, Woodall, 2002). This is mostly due to their extensive concentration and monitoring efforts on error units such as grammar structures, lexical choices etc. during writing process. However, as Pilar and Llach (2011) emphasise “As L2 proficiency increases, L2 writings appear to resemble more and more native productions in their use of syntactic patterns, rhetorical conventions and lexical choices” (p.46). Then it should be assumed that texts written by proficient learner writers of second/foreign language are supposed to display a wider range of lexical choices as well as precision of vocabulary. Furthermore, they should display native-likeness proficiency in their use of second language. The more proficient a learner becomes, the more his or her writing performances resemble native speakers.

Presumably, learners’ high proficiency levels of second language are supposed to enable them to yield native like writing samples and, academic texts. Though, as reported by Cortes (2002), many studies have represented that due to distinctive nature of academic prose, it is problematic not only for those who learn English as a second or foreign language (Hinkel, 2002) but also for novice native-speaker writers. Further studies in second language writing reveal the importance of advanced linguistics competence in target language required learning to write academic prose which are supposed to display a range of lexical and grammatical skill, use of appropriate academic style and expressing ideas in correct language forms. (Nation and Waring, 1997; Hinkel, 2002, 2004).

Taking all these considerations into, this study therefore, aims to investigate use of academic writing specific lexical items in argumentative essays of both Turkish EFL learners and American university students. The purpose is to explore interlanguage features and related characteristics of Turkish EFL learners in use of those words selected in academic writing comparing to native speakers of English.

1.6. Purpose of the Study

Current study, based on the views and approaches mentioned above, mainly aims to finding out the firstly, the coverage of verbs cited in Academic Keyworld List (henceforth, AKL) (Paquot, 2010) in argumentative essays of both Turkish EFL learner and native speaker American University students. Utilising corpus based approach to this investigation; we aimed to explore similarities and differences, if there is any, across Turkish sub-corpus of International Corpus of Learner English (henceforth TICLE) and The Louvain Corpus of Native Speaker (henceforth LOCNESS)

Secondly, in this corpus based with a contrastive nature, it is aimed to investigate interlanguage features of Turkish EFL learners. Grammatical behaviours of AKL verbs used in both corpora were analysed so as to figure out; common and distinctive aspect of use of those verbs across both corpora, later, marked interlanguage features, if any, attributed to use of those verbs by Turkish EFL learner.

Final stage of analysis means to suggest an implication for pedagogical purposes in the light of findings throughout the current study. Furthermore, this data and findings from the study may help developing of tools, sources and materials to be used in teaching academic writing skill to Turkish EFL learners.

1.7. Research Questions

Therefore, this study will try to answer following research questions:

- 1) Do Turkish learners of English as a second language and native speakers of English language rely on academic lexical verbs presented in AKL?
- 2) What are grammatical patterns of verbs chosen as used by Turkish learners and native speakers of English Language?

- 3) What are the nouns and their semantic frames primed with the patterns of the verbs chosen as used by Turkish EFL learners and native speakers of English?
- 4) What are the semantic senses of the patterns of the verb chosen possess?

1.8. Limitation of the Study

Scope of the current study and the relevant findings are limited to size of both corpora; TICLE learner corpus of Turkish EFL learners and LOCNESS as comparable, reference corpus of native speakers of American English. Additionally, study aims to find out overall overuse and underuse of AKL verbs used by Turkish EFL learners in comparison to native speakers. Furthermore, the range of study is limited by conducting in depth analysis of highly frequent ten verbs only used in TICLE and the discussion of findings in comparison to LOCNESS.

1.9. Operational Definitions

Academic Keyword List (AKL): The AKL is the list of 930 words that are potentially frequent in a wide range of academic texts but roughly uncommon in other kinds of texts. (Paquot, 2010)

Annotation: The process of applying additional information to corpus data. See encoding, tagging. (Baker, Hardie, McEney, 2006, p.13)

Computer Learner Corpus (CLC): Electronic collection of authentic texts produced by foreign or second language learners. (McEney and Wilson, 2001, p.177)

Collocation: Described by Firth (1957: 14) as ‘actual words in habitual company’, collocation is the phenomenon surrounding the fact that certain words are more likely to occur in combination with other words in certain contexts. (Baker, Hardie, McEney, 2006, p.36)

Concordance: Also referred to as key word in context (KWIC), a concordance is a list of all of the occurrences of a particular search term in a corpus, presented within the context in which they occur – usually a few words to the left and right of the search term (Baker, Hardie, McEney, 2006, p. 43)

Framenet: A project based at the University of Berkeley, USA, which is seeking to produce a corpus-based lexicon with the needs of language learners, language teachers and lexicographers in mind (Baker, Hardie, McEnery, 2006, p 74)

Interlanguage: A term devised by Selinker in 1972, referring to the linguistic rules and patterns that learners of a second language build for themselves (Baker, Hardie, McEnery, 2006, p. 91)

L1: A person's first language, normally the language that they acquire as an infant and are most competent at using.

L2: A person's second language, usually the one that they will learn at school or as an adult.

Lexical Grammar: The analysis of the behaviour of particular words in terms of their grammatical context. (Baker, Hardie, McEnery, 2006, p. 106)

Louvain Corpus of Native English Essays (LOCNESS): A reference corpus of native speakers of English containing written essays of both British and American students.(Granger, 2009).

Parsing: Process of adding tags to text in order to indicate syntactic structure of individual lexical items.

Part-of-Speech Tagging (POS) A type of annotation or tagging whereby grammatical categories are assigned to words.

Turkish International Corpus of Learner English (TICLE): A learner corpus containing argumentative essays written by Turkish EFL learners' (Granger, 2009).

CHAPTER II

REVIEW OF LITERATURE

2.0. Introduction

This chapter includes general description of related literature. Firstly, corpus and corpus linguistics, learner corpora as well as the related terminology and the research conducted in learner corpora were reviewed. Later, *Contrastive Interlanguage Analysis* was explained along with its contributions to the SLA. Then, corpus based approaches to grammatical descriptions of language were described and *Pattern Grammar* which forms basis to the study was explained. Finally, academic writing, academic word list and academic keyword list and their importance to SLA and to current study were discussed.

2.1. Corpus Linguistics

2.1.1. Corpus Linguistics and Corpora

With the gradually increasing interest to the field, many studies are carried out both in the field of linguistics and applied linguistics to develop new tools and methods of analysing language in-use. Corpus linguistics with its principles for about a century (Bennett, 2010) already brought various insights into the language studies that were not taken into the consideration within the field. Particularly, new insights have been provided into the topic of how language is understood and studied. However, there are still various disagreements whether to assume Corpus Linguistics as a separate discipline itself within the realms of linguistic studies or as another methodological tool.

Corpus Linguistics utilises electronically stored corpora which are principled collection of naturally occurring utterances of language, and thereby an approach to the study of language. As defined by Hunston and Francis (2000), Corpus Linguistics, additionally, is a method of investigating naturally occurring language utterances by observing large amounts of discourse using software that selects, sorts, compiles matches, counts and calculates those utterances.

Corpus based studies has a long history which is rooted back to the 1950s within

the domain of comparative linguistic studies whose main assumption is studying similarities and differences of among languages. However, the term “*Corpus Linguistics*” first appeared in 1980s (Leech, 1992). Afterwards the development of computerised technologies led corpus linguistics to evolve over the time. Before the era of early modern corpus linguistics, before 1960s, few scholars such as Otto Jespersen produced descriptive grammars using the non-electronic literary texts. (Bloor&Bloor, 2013; Kennedy, 1998; O’Keeffe & McCarthy, 2010) The first example of corpus based studies is Jespersen’s *A Modern English Grammar on Historical Principle* (Jespersen, 1909), and following this other studies such as Fries’ *American English Grammar* (1940) and Quirk’s *Survey of English Usage* (1968) appeared among the first examples of corpora based research (Kenney, 1998). First computer driven corpus of the modern corpus era, the Brown Corpus, was compiled in the early 1960s. Nonetheless, during those years, as a result of dominance of the generative linguistics over the field (Meyer, 2004) corpus studies were backgrounded with the effect of the raising of generative linguistics that is led by Chomsky.

Chomsky revolutionised the linguistic studies with his view of generative power of rule. His view proposes the idea that instead of investigating language in use, describing language is possible to be generated in infinite numbers by native speaker’s intuition (Teubert, 2004). The focus on the generative aspect of the language has changed the role of linguistics from interpreting the real language in use to describing the natural language that is produced by the language faculty of the human brain (Teubert, 2004). Under the Transformational Grammar (Chomsky, 1957), the rules of language were to be defined and formulated by the linguist himself to elicit the understanding of existing language structures, of texts. Chomsky (1957) defined two terms; first one is competence, which is internalised knowledge of language, and the other one is performance, external evidence of competence produced by the speaker on particular occasions. Moreover, generative view advocates that outcome of competence, which is performance, may be affected by other components apart from competence, such as affective factors.

Basically Chomsky’s suggestion was that a linguist needed to explore the model language competence rather than performance. Thus, the task of a generative linguist was to discover rules, in abstract terms of competence formed by a native speaker of a

particular language. Hence, the nature of corpus linguistics which is modeling the performance of the speaker was heavily criticised by the generative, Chomskyan, linguists. In brief, generative approach to linguistics claimed that Corpus Linguistics could only capture the bits of performance instead of competence. Also, those bits of performance are no mean to reflect what each language user can produce, rather what he/she has produced under certain circumstances.

Nonetheless, despite Chomsky's criticism of Corpus Linguistics, particularly advances in computer technologies have enabled the developmental progress of Corpus Linguistics. First computer readable samples of corpora were compiled. Furthermore considerable developments in computer technologies led the improvement of corpora. Today, the largest corpora available are the British National Corpus, along with Cobuild Corpus and The Bank of English. Moreover, now, easily accessible softwares also make it possible to gather and collect large amount of language utterances both spoken and written so that researchers can form their own corpora for the sake of their own research.

McEnery (2001) explains the purpose of Corpus Linguistics with reference to related empirical studies. Empirical data, in linguistic research, enable linguists to state objective findings and premises rather intuitive thus subjective inferences. Aston (cited as Viana & Zyngier & Barnbrook, 2011, p.1) also states that "corpus analysis has provided an empirical basis for much contemporary research on language, employing data-based methods which emphasise statistical regularities rather than combinatory rules". Furthermore, according to Bennett (2010) Corpus Linguistics as an empirical research tool basically serving to two crucial theoretical questions;

1. What particular patterns are associated with lexical or grammatical features?
2. How do these patterns differ within varieties of registers?

(Bennett, 2010, p.2)

Instead of claiming if the structure is correct or possible in the theoretical sense, it is searched that if it is covered in the corpus and a particular structure or utterance is not common in the register which the corpus represents. Within these frames of fundamental assumptions, Corpus Linguistics does not provide negative evidence; which implies that corpus is not able to explain what is either correct or incorrect or whether it is possible or not. Corpus, thereby, as a mean tool in this sense, only is to tell

what is covered within the collection (Bennett, 2010). Aligned with the empirical studies, hence, corpus linguistics can provide further insights about linguistics features; frequencies, register variations and particularly how language is used.

Consequently, what one discovers in a corpus can be used as the basis for whatever theoretical issues one exploring. As Leech notes; “all of the criteria applied to scientific endeavours can be satisfied in a corpus study, since corpora are excellent sources for verifying the falsifiability, completeness, simplicity, strength, and objectivity of any linguistic hypothesis” (Leech,1992:112-13 as cited in Meyer,2000, p. 4). On the other hand, from an empirical view, Aarts (1992) foregrounds those observational based insights towards language studies may be claimed as a better approach towards generating detailed explanations on language as used by the societies. Thus it can be concluded that research on functional usage of the language instead of intuition based is a more explanatory resolution.

Additionally, as corpora consist of texts, which are the forms of the data used for linguistic investigations, Meyer (2000) states that those data variables enables linguists contextualise their analyses. Aid of corpus paradigms helps linguists to stand sound claims along with providing solid evidence for their claims. Halliday (2013) also states corpus linguistics’ being fundamental to realms of theorising language, further referring the pre-corpus era, He asserts that “until now, linguistics has been like physics before 1600: having little reliable data, and no clear sense of the relationship between observation and theory” (Halliday&Matthiessen,2013, p. 51). Therefore, Halliday’s assertion (Halliday, 1996, 2002a, 2013) is that, corpora as well as corpus analysis methods and tools are well adopted to conduct functionally based exploration of languages.

Furthermore, Halliday and Matthiessen (2013) listed arguments explaining why corpus studies may potentially be good in use. First of all as stated by Halliday (2013), the data corpora held are authentic so that; structures are what actually people say or write. The data is gathered from various situations where people perform the language in its natural setting. Next, the data compiled within corpora may consist of spoken variations of language ranging from quite formal to self-monitored speech to casual, spontaneous chats (Halliday & Matthiessen, 2013). Therefore, spoken corpora are the ones within which a linguist explores meaning potential of utterance produced by

various speakers. Halliday claims (2002a, 2013) that; this is the place where functional linguists grasp the sight of the direction that the grammar of a peculiar language is headed and reach the semantic domains. Finally, it can be stated that “corpus studies also make it possible to study grammar in quantitative terms” (Halliday, 2013, p 52, also Halliday, 2004, Teubert, 2004, Thompson, 2014; Bloor & Bloor, 2013).

As a summary Corpus Linguistics as a method of conducting linguistics research may help to investigate various linguistics analysis. Also with the help of computers’ capacity to store huge amount of data and their processing abilities, they provide many possibilities and opportunities to study on many different aspects of language in a way that was not available before (Pravec, 2002). Several researchers in both field linguistics and applied linguistics are now devoting significant and substantial work, time and effort to construct methods. Their main aim is being able to interpret large bodies of electronic writing (text corpora) which are produced by both native speakers (NS) and learners of second language or non-native speakers (NNS), with a view of characterising NS competence and tracing sequences towards it (Cobb 2003). As a study of language and method of linguistic analysis of “real language”, use of corpora facilitates getting insight of number of linguistics features and different aspects of language dynamics. Correspondingly, it fosters inheriting the research in second language acquisition that is now a devoted field with the language studies that are related to a number of other fields.

2.1.2.Learner Corpora and Contrastive Interlanguage Analysis

Learner Corpora (LC) or Computer Learner Corpora (CLC) (Granger, 1998), as its name suggests, are computerised collections of second / foreign language texts produced by learners (Leech, 1998). As Granger sets off (2009) the importance of LC, research of learner corpora is located in the intersection of four language related disciplines that are corpus linguistics, linguistics theory, second language acquisition and foreign language teaching.

With its roots both in corpus linguistics and second language acquisition studies, “Learner Corpora studies use the methods and tools of corpus linguistics to gain better insights into authentic learner language” (Granger, 1998, p. XXVI). Learner corpora

research provides new type of data informing both fields that link the SLA studies of which main aim is to understand underlying mechanisms, systems of foreign/second language acquisition and FLT research which aim to enhance the learning and teaching of foreign/second languages.

Granger (2002) also notes that using corpus studies, learner corpora, mostly involves “Contrastive Interlanguage Analysis” (CIA) and “Computer Aided Error Analysis” (EA). CIA involves quantitative and qualitative comparisons between (a) native and non-native data or (b) different varieties of non-native data, from learners with different mother tongue” (Mendikoctxea, Bielsa and Rollinson, 2010, p. 182). In the same way, EA focuses on the learners’ error in interlanguage via computer tools analysing learner corpora. Likewise, Paquot (2002) asserts that as well as learner corpora’s being applied to test out so that to provide empirical evidence for theories of second language acquisition and additionally, “research paradigm of corpus linguistics is ideally suited to studying the lexical specificities of academic discourse in native-speaker and learner writing” (Paquot, 2010, p. 217).

First compiled computer learner corpus is the International Corpus of Learner English (ICLE) that consists of the argumentative essays of EFL learners of English (Can, 2010). First version of ICLE (Granger, 2002) includes 2.5 million words of argumentative essays written by university students who have various first languages. ICLE is organised into the sub-corpora divided according to L1 of students: Turkish, Spanish, French, and Italian etc. This organisation paradigm allows researchers to study interlanguage features of students with various L1, to conduct Contrastive Interlanguage Analysis.

Though corpus studies analysing learner language are new to the field, many research have been conducted such as; research on German EFL learner’s use of collocations (Nesselhauf N, 2005). An investigation in German component of International Corpus of Learner English (ICLE), which signifies use of collocations, is problematic, even for advanced level students. Also, Altenberg (2002) conducted a study to investigate use of causative constructions with *make* in aligned English - Sweden bilingual corpus. Sketching the comparison of original and translated version of texts, Altenberg (2002) showed the L1 transfer evidence in interlanguage of Sweden EFL learners. Additionally Aijmer (2002) carried out a research to compare the

frequency and range of some key modals verbs in NS and NNS writings of English. The data revealed that there may be a shared tendency to overuse some modal verbs among L2 learner of English. Flowerdew (1998) also investigated the rhetorical functions of casualty in academic texts. The study was carried out in both expert corpora and learner corpora. Results indicate that some features such as overuse of logical connectors are distinctive to learners.

Along with the nature of current study, also many other researches have been held to explore interlanguage features of Turkish EFL learners. For instance Can (2011), later Babanoğlu (2012) carried out research which examine conjunctive adverbs usage of Turkish EFL learners in comparison with NS of English and NNS of English with various first languages. Also, Şanal (2007) published research whose aim is to investigate second language lexicology in TICLE corpus. Findings imply that learner corpora TICLE is more complex in terms of lexical diversity and density when compared to native speakers' corpus. Besides, frequency analysis indicates of overuse and underuse of certain lexical items.

Currently there is a growing interest in learner corpora as many researchers of SLA and FL investigate more to imply practical and theoretical value of corpus and learner corpora studies, meanwhile producing valuable works exploring the nature of the language learners as well as language learning and teaching process.

The contrastive interlanguage analysis (CIA) as a method of linguistic analysis involves comparing native language (L1) and learner language (L2) and comparing different varieties of interlanguage (1996, Granger). The former methodology make it possible to highlight distinctive features of learner language, while the latter helps researchers to identify non-standard features which are limited to learner with particular first language.

Comparison of native speaker (NS) and non-native speaker (NNS) is basically mean to clarify non-native distinctive features of learners throughout contrastive analysis of writings and speeches in native and non-native corpora (Granger, 2002). Those comparisons include extracting learner errors and defining over and under use of particular linguistic items, structures or systems. The terms overuse and underuse, for instance, represent the learners' use of significantly fewer or more instance of an item under scrutiny compared to reference corpus.

Additionally, CIA also suggests comparison of non-native speaker data. Essentially, by comparing two or more NNS, it is aimed to gather more detailed data on distinctive or shared feature of learner populations from various mother tongue backgrounds. According to Granger (2002) comparison of various learner corpora is curial to define whether over and underuse pattern are due to learners' transfer from their first language or those uses are to be development deviants. Particular design criterions such as learners' age, gender, proficiency and help researchers to pinpoint specific interlanguage features attributed by learners.

In short, as Paqout (2010, p .70) states “the methodology most frequently used to analyse learner corpora is *Contrastive Interlanguage Analysis*”. CIA involves comparing varieties of one language; native and non-native or different non-native varieties. Basic tenet of CIA is that the methodology aims to foreground components of non-nativeness in learner productions. Analysis of over-, under- and misuse of linguistics items, phrases or structures in NS and NNS comparisons, are supposed to signify native-like state that learners have achieved so far. Furthermore, comparison of different interlanguages, on the other hand, makes it possible to clarify whether those feature are specific to a learner group or they are shared among several learner groups studied. The former one signals that those features are to be assumed due to transfer from first language, while the latter one may indicate that those feature are developmental or due to other factors such as teaching methods, materials and etc. (Granger, 2002).

2.3. Lexical Approaches to Grammar

2.3.1.Introduction

The following sections of the research will focus on a selection of central approaches that integrate grammar and lexis. It will attempt to summarise their core claims and discuss their statements on lexis-syntax integration and their relations to corpus studies. The five research strands or theories that have been selected are: Sinclair's *Idiom Principle*, Halliday's *Systemic Functional Grammar*, Hoey's *Lexical Priming*, Biber's *Lexical Bundles* and Hunston and Francis's *Pattern Grammar*.

2.3.2. Corpus research at the lexis-grammar interface: Major strands and Pattern Grammar

“If there is one major finding of modern (computer) corpus linguistics research over the past 40 years, it is probably that language is highly patterned” (Römer, 2009, p.141). Consequently, computer readable corpora facilitate the exploration of fixed or semi-fixed structural and collocated patterns which constitute languages to most extent. Additionally, lexical - grammar interdependency may now be dwelled into with help of corpus studies. Corpus studies that consist of various authentic texts from different sources may provide empirical, observation-based evidence to lexical-grammar (or vocabulary - syntax) interface.

In the traditional view, syntax is thought as independent of lexis (or lexicon). Römer (2009, p. 141) cites Hoey and O’Donnel (2008) “[i]n the traditional view [...], there is a grammar for every language and there is, quite separately, a lexicon”. However, research such as Firth’s *Meaning by Collocation* (1951), Hornby’s *Patterns and Usage of English* (1954) Sinclair’s *Idiom Principle* (1995), Halliday ’s *Systematic Functional Linguistics* (1994, 2000, 2013), Biber’s *Lexical Bundles* (2000), Hoey’s *Lexical Priming* (2005) and Francis and Hunston’s *Pattern Grammar* (2000) clearly indicates interdependency of both units to each other. Contradictory to traditional approach to lexis syntax differentiation, these theories put forward form - meaning unification.

Firth’s notion of *meaning by collocation* (Firth, 1968) is the essence of this view of lexical meaning and language description. Firth (1968) represented *collocation* as relation between words and used the term *colligation* which represents grammatical relations. The theory assumes that word acquire their meanings through their characteristics co-occurrence with other words. Additionally, their state of co-occurrence is either as a property of general language or as belonging to particular domain specific language variation. (Firth, 1957)

Following Firth, Sinclair (1991) puts forward two main principles to explain meaning and form relationship. The first one is open choice principle which considers “language text as the result of a large number of complex choices”, and the second one is idiom principle which states “a language user has available to him or her a large

number of semi-pre constructed phrases that constitute single choices, even though they might appear to be analysable into segments” (Sinclair, 1991, p. 110). Sinclair’s work claims there is no clear distinction between form and meaning, indeed two units integrate to form a complex sense-structure (or sense-pattern). Each sense has to be associated to particular pattern, though they may seem to be in the form of distinctly analysable units.

Likewise, Sinclair’s view of sense-pattern complexes, Halliday’s approach to grammar carries similar statement. Halliday (1991, 1992) presents lexis and grammar as being “the same thing seen by different observers”(1992, p.63). He defines lexical-grammar relationship with his term “lexico-grammar (Halliday, 1961; Halliday & Matthiessen, 2004). Beforehand, Halliday’s approach to linguistic systems states that it is possible to analyse the relations and continuity between language in use and different social contexts. In advance, Halliday suggests a detailed investigation of discourse variation based on the analysis of linguistic features of structures (Holtz, 2011). Halliday’s view encapsulates a broader view compared to Sinclair’s and others’. In Halliday’s terms, not only lexis and grammar but also each linguistic mechanism is integrated. However, the term lexico-grammar asserts that, at the base level of linguistic inquiry, it is lexis which represents the grammatical choices. Furthermore, it is indicated that even the most abstract grammatical mechanisms rely on lexical realisations. Each linguistic unit is dependent on other one and thereby; they are defined within the frame of their interrelationship.

Both Sinclair’s and Halliday’s works are, to most extent, corpus based. Sinclair (1991) suggests that corpus studies are able to provide sound evidence to lexical-grammar integration and they prove falsity of form and meaning distinction. Besides, Halliday (2013) also adduces corpus linguistics’ being fundamental to functional analysis of language structures. Authentic examples from corpora mean to claim validity of theoretical baseline while they are also source of those theoretical assertions.

In the same fashion, Biber also sets up his approach to explain lexis-grammar interface on corpus studies. His work of *Lexical Bundles* (1999, p.990) is, as represented by Biber, “recurrent expressions, regardless of their idiomaticity, and regardless of their structural status, simple sequences of words that commonly co-occur in natural language use. *Lexical Bundles* are basically collocational sequences of words of three or

more combined to form fixed expressions. These fixed expressions, so called bundles, are assumed to be register specific, meanwhile frequency of occurrence is the main defining feature of them. According to Biber (1999) lexical bundles are identified essentially empirically, and due to their nature, they are not to be confused with idiomatic expressions or pure idioms. Cortes (2004, p. 400) explains that “their (*lexical bundles*) meaning is transparent, fully retrievable from the meaning of the individual words that make up the bundle” which is not valid for the idiomatic expressions.

In addition to Biber’s work on recurrent patterns *Lexical Bundles*, Hoey (2005) states his *Lexical Priming* theory that is also essentially corpus based. Hoey (2005, p.1) explained that “the theory reverses the roles of lexis and grammar, arguing that lexis is complexly and systematically structured and that grammar is an outcome of this lexical structure.” Hoey’s study carries insights of Sinclair’s approach to lexis and grammar integration. Basic argument of the study is that structural categories listed by Sinclair (2004) are the central of lexicon and “priming contextualises theoretically and psychologically Sinclair’s insights about the lexicon” (Hoey, 2005, p158). Theory sets forth the claim of our experiences shape our perception and knowledge of lexis. Encountering a lexical item in discourse, we acquire usage patterns of that lexis and define specific attributes to it. Thus, in consonance, that lexical item with its patterns, structures and textual positions is now primed as being explicit to that discourse, setting. Hoey (2008) claims that priming is idiosyncratic and each person, in accordance with his or her experience, primes lexical items in each written and spoken discourse attaining varied primings to each word. Besides, as priming effects are register-specific, huge collections of text are to be analysed with corpus tools to delineate primed characters of lexis (Römer, 2009).

Finally, *Pattern Grammar* (Hunston and Francis, 2000) which also forms ground to the current study, argues that “particular grammatical patterns are associated with quite specific and often small subsets of the lexicon” (Hoey, 2009, p.41). This approach is to be explained further in details in the following part.

Apart from theoretical assumptions based on corpus linguistics, lexical approach to language analysis requires a series of indications related to research methodology (McEnery and Gabrielatos, 2008) and accordingly, those can be summarised as;

1. First of all, corpus studies indicate observation-based inferences, thus

researcher's reliance on intuitional presumptions and concepts of traditional approach should be minimised.

2. Lexical level generalisations are to be provided collocated patterns of words (Sinclair, 1991). Additionally before taking into analysis on corpora, lexical units must be lemmatised to avoid subjective intuitions.

3. Corpora should contain whole texts, not only parts. As different parts of text may demonstrate various patterns in terms of lexical - grammatical frequency and relations, texts should be taken as whole. .

4. Corpora to be analysed should be large enough to provide a large number of instances of specific word forms since the basic tenet of the study is analysing words not categories. Researchers need a large corpora to be able observe patterns of various words and word forms.

Stubbs (1996, p.35) states that "it may not be an overstatement to say that main impetus, if not driving force, behind much English corpus-based lexical research is the development of a description of language which takes as its basic units lexical items rather than grammatical categories such as nouns and verbs". Putting lexis at the core of paradigms, initial concern of researchers listed above all is revealing the relationship among lexis, grammar and meaning. Additionally, corpus studies are to provide sound basis for claim of those researchers while maintaining essential authentic data to the studies.

The term "*word pattern*", as a general definition, refers to the description of behaviours of lexical items within a huge collection of language in use. Descriptions of such behaviours of individual lexical items are extracted from large amount of computer readable corpora. Patterns Analysis is in tradition of especially Sinclair's *Lexical Analysis* (1995) and Hunston and Francis's *Pattern Grammar* (2000), however similar studies of pattern analysis may be found in the works of Hornby (1947, 1954), Halliday (1994, 2000, 2013), Biber (2000), in FrameNet Project that is a work in progress (Fillmore, 2003). Shared indication among all those studies is the issue of relation among form, meaning and phraseology in particular. Pattern analysis and pattern grammar are to be assumed as an approach whose main aim is to provide generalised characteristics of grammatical description by assigning lexical items of a prior state while incorporating some aspect of traditional grammar.

According to Hunston and Francis (2000, p.39) the patterns of a word can be defined as all the words and structures which are regularly associated with the word and which contribute to its meaning. Patterns are textual arrays that are frequent around a key word. Thus, patterns of a specific lexical item are to be explored and identified as a combination of words occurring rather frequently. Additionally patterns are classified if they are dependent on peculiar word choice as well as they are clearly associated with the meanings with the selected word. Römer (2009) states that patterns exist as neither a single lexical item nor null grammatical structures: yet each pattern is a combination of both. They indicate how words are associated with each other so as to form meaningful units.

First example of pattern analysis, which shares the same characteristics of the current study, is of Hornby's that is *A Guide to Patterns and Usage of English* (Hornby, 1954). The study is to serve learners of English as a second or foreign language as a guide to lexical based practical grammar approach. Hornby's approach to patterns in his study reflects his methods that are formerly employed in the *Advanced Learner Dictionary* (Hanks, 2008). Hornby's previous works include compliance of a list that covers English collocations and studies on verb syntax and vocabulary selection for learners (Hornby, 1972). According to Hanks (2008) works of Hornby and his colleagues provides an organised foundation of further studies as well as suggesting at least three main insights for today's corpus driven lexicography studies. Hanks (2008, p 2) summaries those principles as follows;

1. Language in use is highly patterned. Each word is typically associated with only a small number of syntactic patterns.

2. Ordinary everyday communication consists of utterances based on patterns of usage built up around a small number of very frequent words, each of which is used in a comparatively small number of patterns or structures. At the same time, usage also encompasses a very large number of other possible and actual words and structures, some of which are used only very rarely.

3. The verb is the pivot of the clause. In the front matter of Oxford Advanced Learner Dictionary (Henceforth OALD), Hornby (2000) asserts: "Verb patterns are the most important", and urges learners to "spend a few hours studying ... verb patterns", as "the ordinary grammar-book and dictionary usually fail to supply adequate information

on such points.”

Hornby’s basic indication is that learners of English are required to build their own competence. However, previous works on lexical items are irrelevant to effective language teaching serving to this purpose. Hornby (1954, p. V) claims that “learners should be more concerned with sentence buildings and for this learners need to know the patterns of English sentences and they are to be told which words enter into which patterns”. However, different from Sinclair (Sinclair, 1995) and Halliday’s (Halliday, 2013) view of lexical-syntax interrelationship, Hornby (1954) makes a distinction between pattern and meaning. On the contrary, Hunston and Francis (2000, p.4) cite that Hornby (1954) clearly indicates the opposite view with his quote “A knowledge of how to put words together is as important as, perhaps more important than, a knowledge of their meanings”.

In the same fashion of Hornby’s works on patterning of lexical items, Hunston and Francis (2000) set forth their theory. Though Hornby’s pattern analysis includes patterns of nouns and adjective, a large section of his works are on verb patterns. Nonetheless, *Pattern Grammar* (Hunston and Francis, 2000) covers a more expanded view compared to Hornby’s in terms of taking other word classes into analysis; additionally investigate patterns and meanings relationship in depth. Furthermore, as stated earlier, their work carries Sinclair’s insight of lexis-grammar formation. Those indications (Sinclair, 1991) can be listed as;

1. In the description of languages, lexis, form and meaning cannot be separated.
2. Words have tendency to occur in similar wording, to most extent,
3. Patterns are associated to meaning.

The concept of pattern grammar is introduced in Francis (1993), and later discussed in length in studies Hunston and Francis (1999), Hunston (2004,2007a). According to Hunston (2002,p. 168) pattern grammar is a new approach to language description that “maintains the generalising characteristics of grammatical descriptions while prioritising the behaviour of individual lexical items”. This view to lexical approach attempts to generalise word behaviours. Theory indicates that each lexical item is regularly associated with another, thus patterns are the structures, words or clause types which a lexical item is associated, which also contributes to its meaning. Likewise if the pattern occurs rather frequently while it is also dependent on the

selected lexical item, thus it is to be assumed that the item controls or owns a pattern.

Hunston and Francis (2000) use a set of coding to represent patterns. They only refer to word groups, clause types and specific words. Hunston and Francis (2000) express the coding as a simpler system compared to traditional coding system that handles word classes (Nouns, Verbs and Adjectives) and functional labels (Objects, Complements, Adjunct). Thus it is stated that traditional coding system does not represent surface realisations of structure, also a learner may not be able to interpret typical usage of patterns with this type of coding. Major examples of coding system used in pattern grammar is thus as following;

- v: verb group
- n: noun group
- adj: adjective group
- adv: adverb group
- that: clause introduced by that (realised or not)
- -ing: clause introduced by an ‘-ing’ form
- to-inf: clause introduced by a to-infinitive form
- wh: clause introduced by a wh-word (including how)
- with quote: used with direct speech

For instance as an example of patterns of verb “FORGET” represented as;

- V n (verb followed by a noun phrase: the Subject of the verb is not coded and neither are any accompanying adverbs or other elements; the fact that the noun phrase is an Object is not coded) e.g. Sometimes I change the words because I forget them.
- V wh (verb followed by a finite wh-clause) e.g. She forgot where she left the car.
- V to-inf (verb followed by to-infinitive clause) e.g. She forgot to lock her door.
- V-ing (verb followed by an -ing clause) e.g. I’ll never forget going to Sunday School as a kid.
- V about n (verb followed by a prepositional phrase beginning with about) e.g. She forgot about everything . . .
- V pron-refl (verb followed by reflexive pronoun: although with many verbs

the noun phrase in a V n pattern may sometimes be a reflexive pronoun, the specific coding is given here because the meaning of ‘forget oneself’ is quite different from instances where forget is followed by any other noun or pronoun) e.g. He forgot himself.

(Hunston, 2011, p. 122)

Hunston and Francis (1999) defines *grammar pattern* as “all the words and structures which are regularly associated with the word and which contribute to its meaning”. However not all the sequences of combinational structures are thought to be pattern. For instance, the string [V *in* NP] with an NP that encodes a location does not count as a pattern, since it is not restricted to a particular verb or class of verbs and contributes little or no semantic information to the verb it occurs with (Hunston/Francis 1999, 73). Thus, they list three criteria that a structure needs to satisfy in order to be counted as pattern. First, a string, which is thought as a pattern, needs to occur rather frequent. However, frequency alone is not evidence to patterns. Second, that string must be associated with a particular word or a semantic class of words. Structures that are possible with every items of the same word class is not assumed to be a pattern. Presumably, “relative clauses which can qualify almost any noun are not considered as a pattern”. (Hunston and Francis, 2000, p.49) Additionally, prepositional phrases and adverbial groups signifying time, place and manner are also excluded from pattern lists. Finally, third criterion is that string of patterns is supposed to contribute apparently recognisable meanings to expressions in which they co-occur.

As a summary, each grammar pattern identified is a simple description of a peculiar lexical item. Basic tenet of the theory is inseparability of form and meaning. Like other lexical approaches to the grammar, it is indicated in the basis of *pattern grammar* that grammar is the outcome of unification of each instance of each lexical items in any given text.

In addition to theoretical assumptions of pattern grammar applied to describe behaviours of lexical items in a text and asserting its semantic realms, starting from Hornby to Hunston and Francis, it has been also set forth of pedagogical application of it. Hornby pointed through syntagmatics of verbs in his studies, presumably, led him to formulate pattern of English verbs. In the same nature, Hunston and Francis (1999, 2000), Hunston, Francis and Manning (1997) suggest language teachers to focus on

teaching patterns of words. Accordingly, they set the following list implying how teaching patterning is crucial in language teaching classes; their understanding, accuracy, fluency, and flexibility.

First of all, they claim that teaching patterns promote overall understanding of meaning of an unknown lexical item to the learner. The learner guided towards using patterns as textual bounded clues to meaning is thus able to guess broad meaning of the word given.

Secondly, knowledge of which pattern structures are used with which word is crucial to accurate use of English. As patterns and their meanings can be clustered based on their common aspects, learners can be taught to study new vocabularies not as individual items but as a part of a phrase. This may also help learners to encourage towards accurate use of those words later.

Thirdly, it is assumed that if the learner has access in his / her mental lexicon to ready-made chunks of language utterances it will eventually help them to develop ability to produce steady starts to fluent spoken performances. In addition, learners who have memorised patterns as phrases are able to link particular words with phrases.

Finally, one of basic assumption of the approach, words that share a pattern have also tendency to share semantic aspects as well. Teachers, by combining patterns and words in their language teaching practices, can help their learner to express ideas via various structures.

Overall, patterns stand for the crucial part of language teaching which is to assist learners toward developing native-likeness during learning a second language. As stated by Hunston and Francis (2000, p. 265) “a reference grammar of patterns, then, is a resource which can be used in conjunction with other materials to increase learners’ ability to recognise and use the lexicon of English.” Additionally, learners who work on nature of patterns thus are supposed to gain awareness for authentic use of target language.

2.4.1. Academic Writing

Academic writing refers to the kind of written prose that has a certain style of statement used by scholars to define the confines of their disciplines as well as their

field of expertise. Academic writings generally aim to inform the reader while providing credible information; likewise they are supposed to have particular characteristics such as the use of formal tone and use of the third-person instead of first-person perspective, a clear focus on the research problem under investigation. Additionally, academic proeses require use of specific syntactic variations and particularly decisive word choices.

Halliday (1996) defines the nature of academic writing as having some distinct, significant features that limit the frame of academic texts relation to their environments. The distinctive quality of language in academic proeses is notably due to the lexicogrammatical (also wording, sentence grammar) status of patterns. (Halliday, 1996, 2013; Hunston & Francis, 2000; Carter,2002; Biber,1999). Lexicogrammar of academic proeses signifies use of certain words with specific grammatical structures, particular co-occurrences and typical features of expression in the case of content and register.

Halliday (1996) claims that comprehension of scientific language as well as producing proeses in academic register is problematic not only for native speakers but also for non-native speakers. Hence, students writing in a foreign language specifically require perceiving the features that are typical to academic language rather than the possible ones in theoretical sense.

2.5.1.Academic Vocabulary and Academic Keyword List

The term academic vocabulary refers to a range of words that are common in various academic settings. The concept of academic vocabulary is not to be inferred as words that are unique to a particular field instead; it is intended to be lexical items that are frequent across various academic discourses. First attempt to construct an academic word list is Barber's study (Barber, 1962) which is based on the comparison of three academic texts to figure out common words among three academic texts (Nation, 2000). Though many research have been attempted to create a comprehensive list of academic vocabulary over the time (Campion and Elley, 1971; Praninskas, 1972; Hwang, 1989), it was with the aid of corpus studies in the 1990s, researchers thus were able to prepare a widely accepted and adequate word list for academic studies.

Academic vocabulary is variously known as generally useful scientific voc.

(Birber, 1962), subtechnical vocabulary (Cowan, 1974; Yang, 1986, Anderson, 1980), semi-technical vocabulary (Farrell, 1990), specialised non-technical lexis (Cohen, Glasman, Rosenbaum-Cohen, Ferrara and Fine, 1988), frame words (Higgins, 1966), and academic vocabulary (Martin, 1976; Coxhead, in press) (Nation, 2000, p. 303). Though there are varied labels to name academic vocabulary, the definition is shared among those studies. Correspondingly, academic vocabulary is common to wide range of academic texts while they are not in other types of texts as they are also high in frequency in academic prose.

Academic vocabulary can be defined as a set of options to refer to those activities that characterise academic work, organize scientific discourse and build the rhetoric of academic texts. (Paquot, 2010, p. 49) In a brief, academic vocabulary allows writers to do things that are needed to supply scientific outline to the texts. For instance, Nation (2000) defines those processes as firstly referring to the others' works which requires use of the verbs such as assume, establish, indicate, conclude, maintain, secondly working with data in academic ways which requires use of the verbs namely, analyse, assess, concept, definition, establish, categories, seek.

It is Dresher (1934) who asserted the potential of academic words first (Hirsh, 2010). In his work Dresher categorises academic texts into three kinds; academic texts, general service, and technical. Later Barber (1962) carried out research claiming need for a list of academic words that may be useful for EFL students who study in the science and technology related fields. Barber excluded the words from the General Service List (West, 1953) and technical terms. He stated that technical terms should be learnt via domain specific sources. Thus, it is necessary to distinguish technical terms from academic words.

Later, many research have been carried out on academic word list (Campion and Elley, 1971; Praninskas, 1972; Hwang, 1989). It was aimed to enable instructors analysing learner writings while providing source to prepare test and exercises for learners of ESL. One of the most known word list is University Word List (UWL) (Xue and Nation, 1984) which will be later replaced by Academic Word List (AWL) (Coxhead, 1998).

Academic Word List (Coxhead, 1998) which is based on corpus of academic English with 3.500.000 token, includes 570 word families (Nation, 2000). Academic

Word List was formed in account of both frequency and range, all word families are covered at least in four texts with frequency of 1000 times at total in the corpus given (Coxhead, 1998). According to Nation (2000), while technical vocabulary provides up to 5% of the running words in text, academic vocabulary accounts of around 8.5% (University Word List-UWL) 10% (Academic Word List-AWL).

Corson (1997) presents arguments to support the view that use of academic vocabulary is taken as evidence of being in control of the academic meaning systems, and is thus essential to academic success (cited in Nation, 2000, p.335). Therefore, mastery of academic vocabulary is crucial for students in higher educational settings. Nation (2000) states that as well as learning academic vocabularies directly, experience in academic settings is required so as to be able to use those particular words in context fluently with ideal accuracy. Similarly, Halliday (2013) claims that the nature of academic texts and lexico-grammar features of lexical items in those texts are in significant relation with their environments. Meanwhile, Paquot (2010) claims that providing academic outline of texts via use of academic vocabulary is even problematic for native speakers of English. Correspondingly, it is thus to be assumed that peculiar phraseology of academic words maintains greater difficulties for NNS of English. Hence the assumption is that both NS and NNS students should learn how to use academic lexical items to respond to the requirements of academic prose. Gaining experience in academic settings is needed to develop understanding particular phraseology of academic words.

The term *Academic Keyword List* (Appendix 1) (AKL) (Paquot, 2010) is referred to list covering vocabularies which are frequent in a wide range of academic texts from various disciplines. Apart from previous studies held to form a vocabulary list for English for Academic Purposes (EAP) classes, AKL also includes words from General Service List (GSL) (West, 1953) which covers the most frequent 2000 words of English. AKL comprises a set of 930 potential academic words (Paquot, 2010, p. 26) which are defined as words to be used to outline the scientific framework of the academic texts while serving for the rhetorical and organisational functions in academic discourse.

Paquot (2010) lists four basic features of AKL list which also differentiate the list from other academic wordlists. First of all, words included in AKL are supposed to

exist in professional and student academic writing. Secondly, each word selected is expected to occur in various corpora representing academic writing. Thirdly, in addition to occurrence in corpora, these words selected should be distributed well in academic corpora selected. Finally, in addition to frequency count and selecting high frequent word in academic writings, the criteria of range and dispersion were used as filter. Words that failed the dispersion test were for the second time analysed according to semantic categories they belong and then they can be added to the list according to this bias.

In this study, AKL list is selected on purpose because; first of all, extraction process included investigating of both academic corpora and learner corpora. Additionally, a number of words from General Service List are also included while they are disregarded in Coxhead's Academic Word List. Finally, unlike previous studies on academic wordlists, extraction methods of potential academic keywords confirm the accuracy of the retrieval procedure (Paquot, 2010).

CHAPTER III

METHODOLOGY

3.0. Introduction

Current study includes both descriptive and quantitative research methods. This chapter describes the data analysis procedures of the current study, instruments used and finally statistical analysis methods utilised in data analysis. In the first part data analysis procedure in details was explained. Next, corpora selected for the purpose of the current study namely TICLE and LOCNESS were described. Finally, statistical analysis for determining collocational attributes and patterns was explained.

3.1. Data Analysis Procedures

This study primarily aims to investigate the use of AKL verbs in the learner corpus, namely, TICLE and in comparable native speaker corpus LOCNESS. Both corpora were post-tagged with Treebank Tagger available on Sketchengine (Kilgarriff, 2004) for syntactic analysis and with UCREL Semantic Analysis System (USAS) for semantic analysis on Wmatrix (Rayson, 2009). Also all words were lemmatised. Finally, to overcome word class overlapping problem, all verbs listed in *Academic Keyword List* were searched within the corpora according to their post-tags. However, though automatic extraction of verbs and their post-tags, was carried out individual verbs were checked manually to eliminate the words belonging to other word class.

First of all, overall use of AKL verbs in both corpora were investigated and total frequency and number of types of AKL verbs used in both corpora were calculated. Later, statistical analysis methods were applied to define overuse or underuse of overall AKL verbs existing in TICLE. Additionally, based on frequency counts, top ten of AKL verbs were extracted from both corpora. Furthermore, as suggested by Leech (2011) ordinal frequency analysis, lexical items according to their ranks in corpus were listed to present the frequency counts. Finally, Log likelihood calculations based on distribution proportion of overall and individual frequencies of AKL verbs were administered.

In order to carry out a detailed analysis and discover the collocational patterns of top ten verbs, individual verbs were pinpointed and collocations were extracted. Determining the collocated patterns was based on frequency counts of items co-occurring and logDice statistical measurement carried out. The process of finding pattern structures included, the comparison of the patterns used in both corpora and defined marked patterns by Turkish EFL learners. Finally, an overall analysing procedure including nouns that were primed with those collocational patterns of top ten verbs in the argumentative essays of Turkish EFL learners and American university students. Overall of frequency counts of the patterns found were listed and primed nouns were selected according to their logDice scores as computed by SketchEngine. Collocational patterns whose frequency counts were below 3 were not included and nouns with high logDice score were selected for the semantic analysis. logDice computations were handled according to following parameters.

- Maximum number of items in grammatical relation: 30
- Minimum frequency: 3
- Minimum logDice score: 0
- Minimum score for unary relations: 5.0

Finally collocated nouns of *V n* patterns of verbs selected were analysed via Wmatrix and categorised as nouns common or distinct in both corpora. Afterward, semantic frames of the verbs were investigated on WordNET to find out their semantic senses and these were explained according to their relations with semantic frames of nouns collocated.

3.2. Instruments

In the current study, two corpora, *Turkish subcorpus of International Corpus of Learner English*, namely TICLE and *Louvain Corpus of Native Speaker Essays* namely LOCNESS were utilised. For the purpose of the study, two different corpus tools were utilised, first one is Sketchengine (Kilgarriff, 2004) for frequency analysis and discovery of patterns, second one is Wmatrix (Rayson, 2009) for semantic analysis of nouns primed with selected verbs and their patterns.

3.2.1.Learner Corpus “ICLEv2”

One of the major motivations to compile learner corpora comes from Error Analysis tradition of identifying, describing and explaining errors. However, there are some prominent differences in approach since analysis of learner corpora includes comprehensively methods and techniques of corpus linguistics. Applying the techniques of corpus linguistics to learner corpora consequently involves collecting large sample of learner productions. Furthermore, methods consist of investigation of recurrent patterns, typical lexico-grammatical features that identify learner language related to different learners from various first languages and different settings.

In this sense, Granger (2002) states an approach called Contrastive Interlanguage Analysis (CIA) by which she express a comparison between native and non-native students along with learner with different L1 backgrounds. Therefore, it is possible to define the features common to all the learners or the ones unique to the learners with a particular L1. As acknowledged by Granger (2004b) extra care should be taken to well design and well-document learner corpora as recording the data of individual learners, task and settings associated to learners' language productions are all important because the main focus is on the knowledge and characteristics of language learner.

ICLE corpus was compiled taking into consideration views mentioned above with following task variables used as corpus-design criteria.

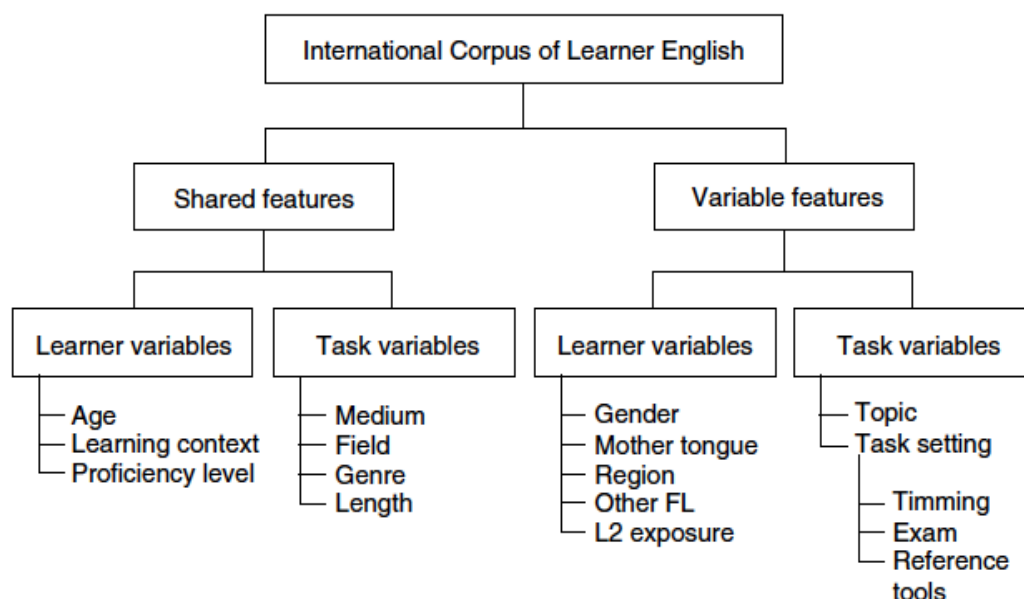


Figure 1.

ICLE task and learner variables (adapted from Granger, 2002, p.13)

All the learners were requested to fill in questionnaire to document each learner text with a detailed learner profile. There are a few common features of learner productions notably, medium (writing), field, genre (academic essay) and length (between 500 and 1,000 words). Additionally, all the essays were submitted by university undergraduates who were learners of English as Foreign Language and in their third or fourth of year university study. ICLE consists of 16 sub-corpora of learners with different first languages which are *Bulgarian, Chinese, Czech, Dutch, Finnish, French, German, Italian, Japanese, Norwegian, Polish, Russian, Spanish, Swedish, Turkish* and *Tswana*.

Majority of essays consist of ICLE were argumentative essays which are mostly untimed essay written with or without reference tools and the remaining essays were timed essay written under exam conditions without any reference tools (Granger, 2009).

3.2.1.1. Turkish Sub-corpus of ICLEv2 “TICLE”

Learner Corpus used in this study is TICLE which is a subcorpus of International Corpus of Learner English version two (ICLEv2). The Turkish component

of ICLEv2 consists of argumentative essays written by Turkish university students. TICLE covers overall 280 argumentative essays that consist of 199,532 words at total. Essays consists of the corpus are collected argumentative essays of university students of three institutions respectively University of Çukurova, University of Mustafa Kemal and University of Mersin. Learners' proficiencies are assumed to range from upper-intermediate to advance. The essays have an average length of 712 words and topic covered in those essays varies from education to environment and society (Can, 2006).

3.2.2. Reference Corpus “LOCNESS”

The Louvain Corpus of Native English Essays (LOCNESS) is a corpus of argumentative essays on a variety of topics written by native British and American university students (Granger and Tyson, 1996). The LOCNESS corpus comprises three parts, British pupils' 114 A-Level essays (60,209 words), British university students' 90 essays (95,695 words), and American university students' 232 essays (168,400 words), totaling 324,304 words. LOCNESS corpus was compiled as a control corpus to enable contrastive research comparing native and non-native language productions. The age group of students in LOCNESS (ranging from 17 to 23) is comparable to that of the non-native EFL students in ICLE. Text types of the corpus covers timed and free essays along with examination papers. Additionally, length of essays is about 500 words, which is similar to that of ICLE. However, particular part of LOCNESS which consists of argumentative essays written by American university students totaling 168,352 words used in the current study.

3.2.3. Sketch Engine

The Sketch Engine (henceforth SkE) (Kilgarriff, 2004) is an online tool for lexical investigations and automatic extraction of lexical information. It is a Corpus Query System incorporating various processing features such as, extraction word lists, word sketches, collocational based thesaurus etc. Primarily, SkE is a tool for lexicography works, compiling dictionaries; however, it is reengineered for pedagogical purposes and for language learners (Kilgarriff, 2007).

The two SkE tools, which are most relevant to the current study, are Word List and Word Sketch function. Word List function is the tool which elicits the frequency of lemma, word, or a list of given words or lemma in given corpora which is tokenised. Function also provides investigation of individual lexical items or a group of items to be searched according to their post-tags, or node forms. On the other hand Word Sketch function provides a summary of grammatical behaviour of a given word in selected corpus. Analysing other words in neighbourhood of given word or lemma, thus defining collocates, Word Sketch utilises frequency and logDice statistic to provide grammatical behaviour summary of that word or lemma. High salience collocates thus are represented and therefore, listing of a keyword's functional distribution and collocation in a corpus given are produced, providing further syntactic information like part of speeches and lexical items frequently act as compliments of that keyword.

3.2.4. Wmatrix

Wmatrix (Rayson, 2009) is also a corpus inquiry tool platform profiling words frequencies, their lexico-grammatical patternings, part of speech annotations and particularly semantic content analysis. Wmatrix web based component of USAS (UCREL Semantic Annotation System) assigns semantic domain tags that are pre-defined in the lexicon to the lexical items in the corpus given. Platform uses a hybrid approach to assign semantic tags, a combination of general likelihood derived from both from corpus and the lexicon and disambiguation process based on post-tags. Therefore, results are given as the most likely semantic tags of the lexical items in the given text. For the purpose of current study, Wmatrix was only utilised so as to extract semantic frames of nouns primed with top ten AKL verbs in TICLE and LOCNESS. List of all semantic annotation and frames were given in Appendix 2.

3.2.5. WordNet

WordNet (Fellbaum, 1998) according to Curran (2003) is an electronic resource, combining features of dictionaries and thesauri, inspired by current psycholinguistic theories of human lexical memory (p.8). WordNet is basically a large database of English consists of verbs, nouns, adjectives and adverbs. Each lexical entry is organised

in synonym sets which are inter-connected by means of lexical and semantic relations. WordNet is organised into semantic relations since those relations represent the link between meanings which can be introduced by synsets (synonym sets) (Miller, Beckwith, Fellbaum, Gross and Miller, 1993). Therefore, unlike traditional sense of dictionaries, WordNet organises lexical information in terms of word meanings. In this sense, it resembles a thesaurus more than a dictionary.

WordNet was developed by Princeton University's open-public system which can be navigated via an Internet browser and can be accessed at <http://wordnet.princeton.edu>.

3.3.1. Frequency in Corpus Studies

“In corpus linguistics *frequency* refers to the arithmetic count of the number of linguistics elements (i.e. tokens) within a corpus that belong to each classification (i.e. type) within a particular classification scheme” (McEnery, Xiao and Tono, 2006, p. 52). Frequency analysis is the most direct form of statistical claims that a corpus inquiry may provide. Furthermore, Leech states the frequency as being the only benefit of a corpus may afford while it is not possible to provide any other means (Leech, 2011). In addition, Leech (2011, p.8) defines three types of frequency used in corpus studies.

- ‘Raw frequency’ is simply a count of how many instances of some linguistic phenomenon X occur in some corpus, text or collection of texts.
- ‘Normalized frequency’ (sometimes called ‘relative frequency’) expresses frequency relative to a standard yardstick (e.g. ‘tokens per million words’).
- ‘Ordinal frequency’, the frequency of X is compared with the frequencies of Y, of Z, etc. Thus a rank frequency list, in which words are listed in order of frequency, is the classic example of ordinal frequency.

Corpus Linguistics relies heavily on interpretation of results obtained by frequency count. Frequency analysis enables comparisons to be made between different lexical items helping to define markedness or prototype-ness of the item in focus. Additionally, analysis of frequencies is used to explore grammatical structures ascertaining which tenses or forms of those tenses are common in a given genre and etc.

Finally, frequency counts are also used in the calculation of type/token ratio of a corpus and collocational and dispersion data represented in corpus given.

However, frequency results alone do not provide detail explanations of grammatical or lexical behavior of units in a given text. Therefore, concordance based analyses are necessary to explain why certain items are more or less frequent, what their distinctive and shared grammatical aspects and also it is necessary to identify collocated items of the unit in consideration.

3.2.6. Log-Dice

Collocations and collocational patterns are defined within a corpus according to frequency counts and saliency calculations, namely association scores. “Association scores as a measure of the attraction between words play a crucial role in the operationalisation of empirical collocations, next to the formal definition of cooccurrence and the appropriate calculation of cooccurrence frequency data” (Evert, 2007, p.6). Though frequency counts display the number of instances of co-occurrence of items, it is not able to represent amount of statistical associations between words. Therefore, a formula of association score is used to define good collocations. The score is computed for all possible word pair and pair with high score are presented as collocated candidates. The very same scores are also used to explore grammatical relations. There is more than one formula of association score such as, T-score, MI score, Minimum sensitivity, Dice coefficient etc. Each formula has its own characteristics signifying their weakness and strengths. In this study, collocated patterns are explored via utilising WordSketch function presented by SketchEngine software. Collocated patterns in WordSketch are obtained by using a modified version of Dice-co-efficient formula which is logDice.

Formula of Dice-coefficient is as follows;

f_x = number of occurrence of word X

f_y = number of occurrence of word Y

f_{xy} = number of occurrence X and Y

Dice-coefficient formula:

$$D = 2f_{xy} / (f_x + f_y)$$

However Rychly (2008) claims that due to small number Dice-coefficient provide, they modified formula as follows:

$$\logDice = 14 + \log_2 D = 14 + \log_2 \frac{2f_{xy}}{f_x + f_y}$$

Additionally, they acknowledge that values which new formula “logDice” provides have these features:

- Theoretical maximum is 14, in case when all occurrences of X co-occur with Y and all occurrences of Y co-occur with X. Usually the value is less than 10.
- Value 0 means there is less than 1 co-occurrence of XY per 16,000 X or 16,000 Y. We can say that negative values means there is no statistical significance of XY collocation.
- Comparing two scores, plus 1 point means twice as often collocation, plus 7 points means roughly 100 times frequent collocation.
- The score does not depend on the total size of a corpus. The score combine relative frequencies of XY in relation to X and Y.

(Rychly, 2008, p.9)

3.2.7. Log-Likelihood

Log-likelihood (LL), like Pearson’s Chi-Square, is a statistical significance test that is often used in corpus studies, additionally known as G-square or G score. Log-likelihood compares observed and expected values for two datasets to calculate statistic measuring the difference. The formula for Log-likelihood computation is as follows:

$$G^2 = 2 \sum x_{ij} (\log_e x_{ij} - \log_e m_{ij})$$

“Where x_{ij} are the data cell frequencies, m_{ij} are the model cell frequencies, \log_e represents the logarithm to the base e, and the summation is carried out over all

the squares in the table (Oakes 1998, cited in Baker, Hardie & McEnery, 2006, p.110).

In this study, contingency table was used to compute Log-likelihood. There are two corpora in different sizes investigated in the study and LL measurement is to signify differences where it is likely to occur. Results are used to imply whether overuses or underuse profiles represented by Turkish EFL learners are significant.

CHAPTER IV

FINDINGS AND DISCUSSION

4.0. Introduction

The current chapter represents the results of the data analysis of the study conducted on two corpora; TICLE and LOCNESS. Analysis is two folded as quantitative and descriptive. On the quantitative part, data analysis procedure includes investigating and extracting frequencies and of 233 verbs introduced in Academic Keyword List, calculating overall frequencies, distribution percentages, normalised frequencies and type/token ratio. Afterwards, the top ten AKL verbs across both corpora were listed along with their statistical analyses.

Descriptive analysis section covers identification of collocated patterns and analysis of semantic frames of collocated nouns with the patterns. First of all, grammatical patterns of ten AKL verbs with high frequencies were searched across both corpora. Then patterns of verbs, found in native speaker corpus and learner corpus, were listed with their frequencies and distribution percentages. Secondly, shared and distinctive semantic frames of nouns used in the pattern “*V n*” were extracted via Wmatrix tools. Finally, based on analysis of semantic frames, semantic senses patterns possess were expressed.

4.1. Results

4.1.1. Overall frequency analysis of AKL Verbs across Both Corpora

Beforehand, the AKL verbs were searched in both corpora and they were listed according to their part of speech tags. All words were lemmatised. Then, each lemma of total 233 AKL was listed according to part of speech tags derived from corpora and word classes apart from verbs were disregarded from frequency count. Finally, all instances of AKL verbs used in TICLE (L2) and LOCNESS (L1) were calculated and total frequency of each verb was obtained.

The results are as follows: TICLE, which is the learner corpus, covers 5456 tokens of the AKL verbs while native speaker corpus, LOCNESS, covers 5141 tokens.

As shown on Figure 2 below, AKL verbs were overused in terms of raw frequency count.

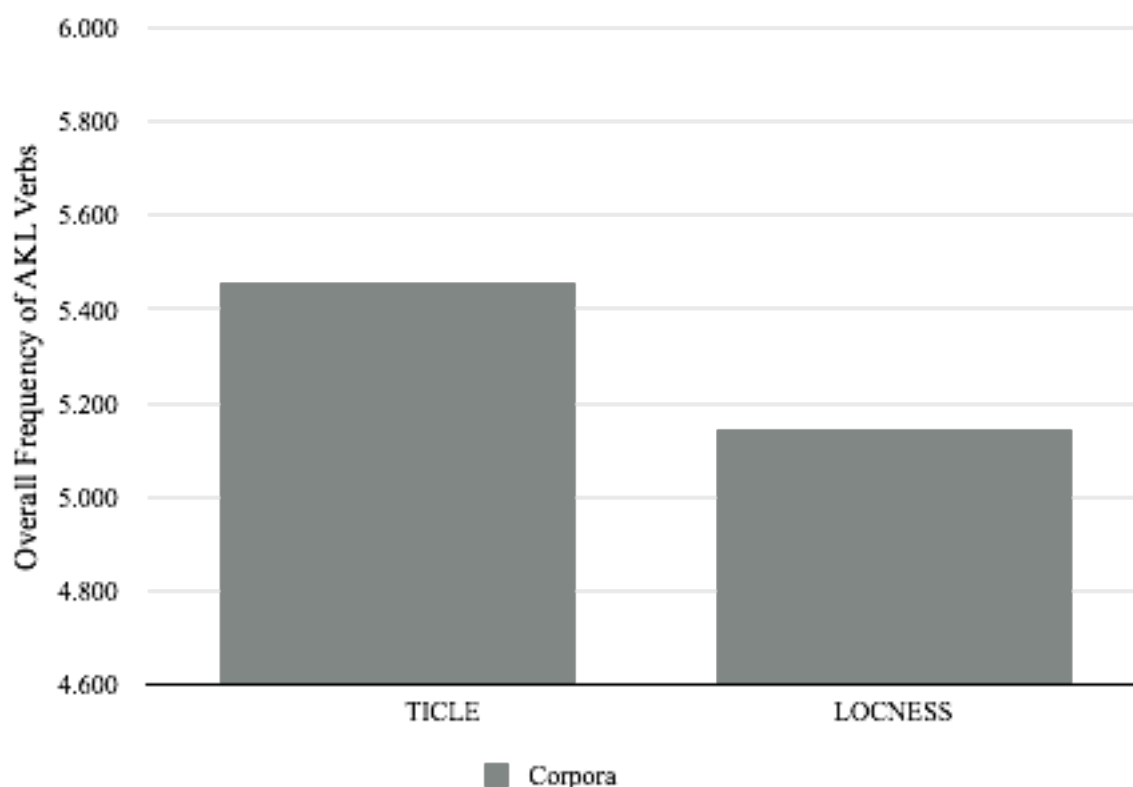


Figure 2.

Overall frequency of AKL verbs used in both corpora

Due to difference of numbers of tokens across two corpora, raw frequency analysis is not to verify significance of over / under use density. Therefore, in addition to overall raw frequency analysis, it is crucial to show results of normalised frequency calculation along with total numbers of words and with type/token ratio. Table 1 shows total numbers of running words in both corpora, number of types of the AKL verbs used existing in TICLE and LOCNESS, and the total number of these verbs along with normalised frequency values (n per 1 million).

Table 1

Overall comparative distributions of the AKL verbs on both corpora

	TICLE (L2)	LOCNESS (L1)
Corpus Size in words	199.350	148.516
Number of Verbs Used (type)	202	218
Overall frequency of verbs used	5456	5141
n per 10000	237,689	346,157
Type/Token ratio	0,037	0,042

n = raw frequency of verbs used

T/t ratio = Type/token ratio; percentage of number of AKL verbs (types) in total number of running AKL verbs (token) in each corpus

On Table 1, corpus sizes in number of words, total frequencies of the AKL verbs used, and their normalised frequency values per 1 million were given. Because of significant difference between numbers of token of both corpora, total frequencies of AKL verbs used in each corpus were calculated n per 1 million.

Results indicate that TICLE includes 5456 instances of AKL verbs in terms of raw frequency or 237,689 instances per 10000 of AKL verbs while LOCNESS includes 5141 or 346,157 instances per 10000. Normalised frequency measurements evidently implied that Turkish EFL learners of English clearly outlined an underuse profile of lexical verbs covered in the Academic Keyword List.

Initially, on Table 1, it was indicated that number of different AKL verbs (types) in TICLE was 202 out of 233 AKL verbs, and total number of running words in corpus was 199350. Thus, type/token ratio (TTR) value given in percentage was calculated as 0,037. On the otherhand, number of distinctive types of AKL verbs in LOCNESS was

218 out of 233 and total number of word in corpus was 148516. Therefore, TTR value of L1 corpus was 0,042.

Type Token Ratio is the relationship between the total number of running words in a corpus and the number of different words used. Also, it is dependent on the corpus size. For this case, it was calculated for total number of running AKL verbs in each corpus and it is ratio to total number of type of the AKL verbs in each corpus. When two corpora were compared, results stated that TICLE had a lower type-token ratio than LOCNESS. Therefore, corpus L2 (TICLE) could be said to have more repetition and thus less variation in the AKL verb use than corpus L1 (LOCNESS). Consequently, it was claimed that Turkish EFL learners rely more on recurrent lexical choices and less lexical variation in terms of the AKL verb use in their argumentative essays when they were compared to native speakers of English.

In addition to frequency analysis and type/token ratio, it is essential to measure significance of overuse / underuse in order to validate indications of frequency calculations. Normalised frequency makes it possible to elicit comparable data; however, it is not proof that the results are significant. Therefore, Log-likelihood (LL ratio) is the statistical analysis to confirm previous claims while it can also express the significance of usage profiles. LL ratio was computed to compare total frequencies of the AKL verbs used in TICLE and LOCNESS.

Table 2.

LL ratio of AKL verbs used in both corpora

	TICLE (O1)	%1	LOCNESS (O2)	%2	Loglikelihood
AKL Verbs used	5456	2.44	5141	3.05	-134.54

Legend: Numbers listed below the names of corpora indicates total raw frequency of AKL Verbs. %1 and %2 values show relative frequencies in the texts. + **indicates overuse** in O1 relative to O2, - **indicates underuse** in O1 relative to O2.

Contingency table was utilised to calculate Log-likelihood ratio. In the table above, O1 and O2 refer to overall frequency of AKL verbs used in both corpora. Meanwhile, %1 and %2 represents the relative frequency of the lexical items in the texts. Thus, %1 stands for relative frequency in TICLE i.e. 2.44 indicating there are roughly 2.44 AKL verbs per 100 words in corpus. Likewise, relative frequency of AKL

verbs used in LOCNESS is 3.05; in other terms there are approximately 3.05 verbs per 100 words in LOCNESS.

LL ratio on Table 2 clearly confirmed significance of variables represented on Table 1. LL ratio ($p = -134.54$, $p < 0.05$) states the overall underuse of AKL verbs in TICLE was significant. There is a notable difference between two corpora in the terms of the AKL verb usage. Thus, underuse of those verbs in TICLE compared to LOCNESS was confirmed by LL ratio.

Overall results indicates; first of all Turkish EFL learners of English outline underuse profile of overall AKL verbs compared to native speakers of English. As confirmed by LL measurement, underuse phenomenon is significant, ($p < 0.05$, $p = 134.54$). Secondly, type/token ratio of AKL verbs (0,037) is lower in TICLE than LOCNESS (0,042). It can be inferred that overall AKL verb density in TICLE is inadequate compared to LOCNESS. Turkish EFL learners rely more on repetitive use of certain verbs.

4.2. Top 10 AKL Verbs in TICLE and LOCNESS

A frequency list of the AKL verbs used in both corpora obtained from each corpus and their top 10 AKL verbs were listed. Table 3 reports top ten AKL verbs in both corpora displaying their raw frequency, distribution percentage to overall frequency of the AKL verbs used in each corpus and their ranks in other corpora.

Table 3.

Overall frequencies of top 10 AKL verbs in both corpora

TICLE	n	%	Rank	LOCNESS	n	%	Rank
use	528	%9.67	(1)	use	299	%5.81	(1)
become	281	%5.15	(2)	become	211	%4.10	(2)
cause	168	%3.0	(8)	allow	150	%2.91	(22)
show	131	%2.40	(4)	show	128	%2.48	(4)
consider	124	%2.27	(7)	state	120	%2.33	(46)
suffer	118	%2.16	(50)	support	113	%2.19	(19)
provide	115	%2.10	(9)	consider	99	%1.92	(5)
study	111	%2.03	(75)	cause	90	%1.75	(3)
prevent	97	%1.77	(30)	argue	84	%1.63	(32)
create	95	%1.74	(26)	provide	81	%1.57	(7)

On Table 3, six out of top ten verbs in TICLE appear also in the top ten list of LOCNESS, namely; *use*, *become*, *show*, *consider*, *cause* and *provide*. The remaining four verbs which are *prevent*, *develop*, *suffer* and *study* ranked in the top 50 verbs of LOCNESS. Overall results indicated consistency between two corpora in terms of top ten AKL verbs. Except their rank orders, six out of top ten verbs are identical. It can be inferred that Turkish EFL learners, to the most extent, rely on the same frequent AKL verbs as native speakers.

However, though their rank order in the list, evidently proportional percentages of the AKL verbs are unequal when both corpora compared. In both corpora the first two verbs are identical which are *use* and *become*. Seemingly, as it is shown on Table 3, almost 10 % of overall AKL verbs used in TICLE consists of the verb *use* alone and the verb *become* covers the 5.15 % of overall frequency of AKL verbs used. In LOCNESS, *use* consists of approximately 6 % and *become* consists 4.10 % of overall frequency

count of the AKL verbs. These results also verify the previous claim that Turkish EFL learners of English incline towards using recurrent lexical items. Next section investigates individual items in details stating their underuse and overuse profiles along with pattern analysis results.

4.3. Pattern analysis of AKL verb with high frequency

In this section, top ten AKL verbs in both corpora were analysed in depth. However, though represented on Table 3 as first and second ranked verbs across both corpora, *become* and *use* were disregarded for the sake of study. As they carry exceptional frequency size indicating specific markedness in TICLE, to maintain lexical diversity to be investigated, those verbs were ignored and two verbs *apply* and *solve*, were added to pattern analysis list based on their ranks in TICLE.

4.3.1. The Verb *CAUSE* and Its Grammatical Behavior in Both Corpora

Overall raw frequency and ratio of distribution proportion of the AKL verb *cause* are 168, 3.0 % in TICLE and 90, 1.75 % in LOCNESS. As seen on Table 4, the verb *cause* ranks third among top ten AKL verbs of TICLE while it ranks eighth in LOCNESS. Also, its rank order indicates overuse of the verb in TICLE.

Table 4.

Log likelihood result of the verb cause

Verb	TICLE (O1)	%	LOCNESS (O2)	%	LL
<i>cause</i>	168	0.08	90	0.06	+ 6.56

O1 is observed frequency in TICLE, O2 is observed frequency in LOCNESS, %1 and %2 values show relative frequencies in the texts, + **indicates overuse** in O1 relative to O2, - **indicates underuse** in O1 relative to O2.

Additionally, LL ratio on Table 4 ($p = + 6.56$, $p < 0.05$) confirms the overuse and indicates that the overuse is significant. Turkish EFL learners significantly overused the AKL verb *cause* in their argumentative essays compared to native speakers of English.

Table 5 shows all collocated patterns of the AKL verb *cause* used in TICLE and LOCNESS along with their frequencies and distribution proportions.

Table 5.

Overall patterns of the AKL verb cause used in both corpora

TICLE		LOCNESS	
Patterns (n)	%	Patterns n	%
<i>V n</i> (122)	%72.61	<i>V n</i> (72)	%80
<i>V to-inf</i> (16)*	%9.52	<i>V-ed by</i> (11)	%12.22
<i>V pro_object</i> (13)	%7.73	<i>V pro_object</i> (5)	%5.55
<i>V-ed by</i> (8)	%4.76		

The upper-case V (verb group) word-class whose patterns on focus. v: verb group, n: noun group, adj.: adjective group, adv.: adverb group, that: clause introduced by that (realised or not), -ing: clause introduced by an '-ing' form, to-inf. clause introduced, by a to-infinitive form, wh. clause introduced by a wh-word (including how), pp: clause introduced by a preposition, v-ed passive structures, pro_object object pronoun Asterisk * marked pattern structures in corpus.

n: raw frequency count of individual pattern.

%: ratio of frequency count of an individual pattern to overall frequency count of all patterns used

Table 5 reports the patterns of verb *cause* used in both corpora and their frequencies. On Table 5, pattern *V n*, verb followed by noun or noun group, ranks first in both corpora. The table shows that both Turkish EFL learners and native speakers incline towards using *V n* pattern of the AKL verb *cause* (n 122, 72.61 % in TICLE and n 72, 80 % in LOCNESS). Concordance lines below exemplify this pattern structure in both corpora.

1	file1424648	physically so their not being equal physically	causes	this <i>argument</i> . Firstly, I want to talk
2	file1424651	child's psychology. This violence scenes	cause	mental <i>disorders</i> for many children today
3	file1424652	than the air out side. Poor ventilation	causes	air pollution <i>problems</i> . There are some
4	file1424652	important factors of air pollution is that yt	causes	health <i>problems</i> as well as crop damage
5	file1424652	human body in a specific way and it can	cause	serious health <i>problems</i> . The seriousness
6	file1424665	It is great, but harmful because it can	cause	a great <i>number</i> of people's death if it
7	file1424665	possess, especially planes. Sometimes, they	cause	<i>death</i> due to accidents. To sum up, 20th
8	file1424667	of the body it is not beneficial. Also it	causes	big <i>arguments</i> between the couples as their
9	file1424667	spending it with his/her partner; moreover yt	causes	<i>divorces</i> . There are a few disadvantages
10	file1424671	isolated from the other people and thus it	causes	a <i>lot</i> of psychological problems as a result
11	file1424679	abused because they are not married, this can	cause	a <i>lot</i> of psychological problems . Since
12	file1424680	take your own life. It is too much so what	causes	a <i>person</i> to commit suicide " What drives

Figure 3.

Concordance Lines for V n pattern of cause in TICLE

3	file1429629	shows how sales procedures are wrong and are	causing	<i>harm</i> to the consumers. In Norton's article
4	file1429629	execution and that to televise it might	cause	<i>violence</i> . Other reasons include concern
5	file1429629	Marquette's planned commons and that just might	cause	<i>problems</i> . The transit company is estimating
6	file1429629	euthanasia? No one can tell if euthanasia will	cause	the same <i>problems</i> as abortion did. But
7	file1429629	allowed. Because euthanasia could possibly	cause	the same <i>problems</i> as abortion did, it is
8	file1429629	confines of the execution facility so as not to	cause	an <i>increase</i> in violence. The opposition
9	file1429629	and the fact that those values conflict	causes	each <i>side</i> to rethink what they believe
10	file1429629	the acceptance of these practices might	cause	a <i>breakdown</i> of the faith i doctors that
11	file1429629	terminally ill. This possible consequence	causes	<i>people</i> to think twice before accepting
12	file1429629	As Reich wrote, <*. This thought is what	causes	<i>society</i> to be more willing to accept doctors
13	file1429629	this argument. While the gene sometimes	causes	sicklecell <i>anemia</i> it always causes a resistance
14	file1429629	sometimes causes sicklecell anemia it always	causes	a <i>resistance</i> to malaria. Arguing this point
15	file1429629	Newsweek looks at the binge drinkers that	cause	<i>problems</i> . Statistics are given on the

Figure 4.

Concordance Lines for V n pattern of cause in LOCNESS

Additionally other patterns used in both corpora are passive construction *V-ed by* in LOCNESS; n 11, 12.22 %, in TICLE; n 8, 4.76 % and verb followed by object pronoun, *V pro_object* in TICLE; n 13, 7.73 %, in LOCNESS; n 5, 5.55 %. It can be concluded that American university students prefer using *V-ed* pattern while usage of the verb with object pronoun is more common in TICLE. Furthermore, on Table 5, pattern verb followed by an infinitive verb *V to-inf*; n 16, 9.52 % has high frequency in TICLE indicating marked usage of the pattern by Turkish EFL learners compared to American university students.

1	file1424646	brought up, they are always spoiled and this cause them to have a patriarchal thinking in
2	file1424662	yet, but they have found the virus which causes it and knows how it spreads. The drug “
3	file1424739	Abortion affects women in psychological way. It causes them to resist children and marriage. It
4	file1424746	themselves took some innocent person's life which caused them to be put there. The only impression
5	file1424763	my opinion these differences should not cause them to be treated differently since they
6	file1424777	disease which is not possible to be cured. It causes him not to move any part of his body except
1	file1424695	it's God. This is the worst evil that is caused by money . Philanthropy and friendship
2	file1424744	incest situations It is said that a pregnancy caused by rape or incest is the result of a serious
3	file1424761	about the educational problems which are caused by the shortage or absence of money. People
4	file1424761	themselves in their small ages and which are caused by the lack of money. Unfortunately in
5	file1424795	poverty for women. A radical solution to this, caused by rapid population growth and structural
6	file1424804	family problems. 70 % of family problems are caused by money problems . It may seem exaggerated

Figure 5.

Concordance Lines of V-ed and V pro_object patterns of cause in TICLE

1	file1429629	subject of racial dispute and discrimination caused by stereotypes , and experiences. The way
2	file1429629	product of a shame bred in the family, but caused by the acts of others in response to a
3	file1429629	, where does this feeling of inferiority caused by white action lead the black community
4	file1429629	reasoning was <*>. With feelings like this caused by white racism and black discrimination
5	file1429629	the black students' job to solve e problem caused by the white student . In reality, the
6	file1429629	like Dilantin for the treatment of seizures caused by epilepsy have made the quality of life
1	file1429629	different ethical values and beliefs to cause them to back up their own side. The Civil
2	file1429629	and beliefs regarding sexual relationships caused me to commit to the relationship. Having
3	file1429629	advances in medicine in recent years are causing us to rethink certain issues. These issues
4	file1429629	contentment. This love of money urges them on, causes them to neglect their families and at times
5	file1429629	lives be ruled by the advice of others, causing themselves much soul-searching and agonising

Figure 6.

Concordance Lines of V-ed and V pro_object patterns of cause in LOCNESS

In addition to pattern analysis and examples from selected concordance lines, Table 6 acknowledges nouns collocated with *V n* pattern and their shared semantic frames across both corpora while Table 8 and Table 9 show distinctive frames and nouns within those frames. Finally, according to semantic frames of nouns collocated, semantic sense that pattern *V n* carries was expressed.

Table 6.

Nouns and their Shared Semantic Frames of V n pattern of cause in both Corpora

	TICLE	LOCNESS
Semantic Frames	Nouns	Nouns
Damaging and destroying	harm, collapse, destruction, damage	harm
Worry	trouble, uneasiness, concern	tension
Sad	jealousy, depression, suffering	depression
Death	death, extinction, suicide	homicide
Difficult	problem, crisis	problem
Disease	discomfort, illness, mental disorder	anaemia, cancer, pain, paranoia, disease
Hindering	fight	resistance, hinderance
Failure	breakdown	breakdown, downfall
Quantities: many/much	increase	increase
Money: Debts	loss	loss
Green issues	pollution	pollution
Evaluation: Bad	defect	skepticism
Crime	crime	crime
Change	deformation	change

On Table 6, there are fifteen shared semantic frames across both corpora, *Damaging and destroying, Worry, Sad, Death, Difficult, Disease, Hindering, Failure, Quantities: many/much, Money: Debts, Green issues, Evaluation: Bad, Crime, Change* which include identical words; *harm, depression, problem, breakdown, increase, loss, pollution and crime*. Among all nouns and semantic frames on Table 6, frames

Damaging and destroying, Worry, Sad, Death, Difficult, Disease indicate interlanguage markedness of Turkish EFL learners, as these nouns fall into these frames.

Table 7

Nouns and their Distinctive Semantic Frames of V n pattern of CAUSE in TICLE

TICLE	
Semantic Frames	Nouns
Speech: Communicative	response, argument
Warfare, defence and the army; weapons	war
Violent/Angry	unrest
Using	use
Unexpected	hopelessness
Temperature: Hot / on fire	melting
Failure	unproductive
Quantities: little	decrease
Kin	divorce
In power	influence
Evaluation: Good/bad	evaluation
Anatomy and physiology	pregnancy

Table 8.

Nouns and their Distinctive Semantic Frames of V n pattern of CAUSE in LOCNESS

LOCNESS	
Semantic Frames	Nouns
Comparing: Different	dissension, prejudice, discrimination
Unseen	blindness
Unethical	degradation
Strong obligation or necessity	need
Money: Lack	poverty
Measurement: Speed	divorce rate
Judgement of appearance: Ugly	wreck
Giving	lack
General actions / making	implementation
Evaluation: Bad	inferiority
Unluck	accident

Fifteen distinctive semantic frames of nouns primed with the pattern *V n* of the verb *cause* across both corpora are listed on Table 7 and Table 8, Therefore analysis result shows that frames of those nouns are as follows: “*Speech: Communicative, Warfare, defence and the army; weapons, Violent/Angry, Using, Unexpected, Temperature: Hot / on fire, Failure, Quantities: little, Kin, In power, Evaluation: Good/bad, Entertainment generally, Anatomy and physiology*” in TICLE and “*Comparing: Different, Unseen, Unethical, Strong obligation or necessity, Money: Lack, Measurement: Speed, Judgement of appearance: Ugly, Giving, General actions / making, Evaluation: Bad, Unluck*” in LOCNESS.

Though their distinctiveness, overall semantic frames cover negative sense across both corpora. Particularly, frames found in TICLE represent any kind of event, situation or thing that is bad or negative. Same results can be also observed among common semantic frames across two corpora. Hence, collocation with those nouns, whose semantic frames either shared or distinctive, carries common semantic senses those are “give rise to; cause to happen or occur, not always intentionally or cause to do; cause to act in a specified manner”.

4.3.2. The Verb *SHOW* and Its Grammatical Behaviour in Both Corpora

On Table 3, the verb *show* ranks fourth among the top ten AKL verbs of both TICLE and LOCNESS. Overall raw frequency and distribution proportion are n 131, 2.40 % in TICLE and n 128, 2.48 % in LOCNESS.

Table 9.

Log likelihood result of the verb show

Verb	TICLE (O1)	%	LOCNESS (O2)	%	LL
<i>show</i>	131	0.07	128	0.09	- 4.74

O1 is observed frequency in TICLE, O2 is observed frequency in LOCNESS, %1 and %2 values show relative frequencies in the texts, + **indicates overuse** in O1 relative to O2, - **indicates underuse** in O1 relative to O2.

Though their matched rank orders in both corpora, LL ratio ($p = - 4.74$, $p < 0.05$) indicates significant underuse of the verb by Turkish EFL learners. Turkish EFL learners significantly underused the AKL verb *show* compared to American university students. Table 10 shows all the collocated patterns of *show* used in TICLE and LOCNESS as well as frequencies and distribution proportions of those patterns.

Table 10.

Overall patterns of the AKL verb show used in both corpora

TICLE		LOCNESS	
Patterns (n)	%	Patterns (n)	%
<i>V n</i> (64)	%48.85	<i>V n</i> (58)	%45.31
<i>V pro_object</i> (11)	%8.39	<i>V wh compl.</i> (13)	%10.15
<i>V to(pp)</i> (5)	%3.81	<i>V pro_object</i> (5)	%3.90

The upper-case V (verb group) word-class whose patterns on focus. v: verb group, n: noun group, adj: adjective group, adv: adverb group, that: clause introduced by that (realised or not), -ing: clause introduced by an '-ing' form, to-inf: clause introduced, by a to-infinitive form, wh: clause introduced by a wh-word (including how), pp: clause introduced by a preposition, v-ed passive structures, pro_object object pronoun Asterisk * marked pattern structures in corpus.
n: raw frequency count of individual pattern. %: ratio of frequency count of an individual pattern to overall frequency count of all patterns used.

On Table 10, collocated pattern verb followed by a noun or noun group *V n* of the verb *show* is ranked first across both corpora. Thus it is assumed that both Turkish EFL learners and American university students rely on identical pattern of *show* that is *V n* whose frequency and distribution percentage are n 64, 48.85 % in TICLE and n 58, 45.31 % in LOCNESS. Concordance lines below exemplify those patterns as used.

1	file1424649	, if they are not interested and don't	show	their <i>love</i>	, affection to her , if they
2	file1424650	because they had never met something which	shows	the <i>badness</i>	of cheating. Students do not
3	file1424669	negatively. We do not have to go so far away to	show	appropriate <i>examples</i>	. It is obvious that
4	file1424703	you think that high grade shows? Does it	show	your <i>preparation</i>	for the life? NO, it shows
5	file1424703	show your preparation for the life? NO, it	shows	your all <i>attitudes</i>	, exams or some other
6	file1424728	people get divorced. Now a days, the couples	show	severe <i>incompatibility</i>	as a reason getting
7	file1424729	problems begin to occur. People begin to	show	their real <i>personalities</i>	. As a result,
8	file1424755	day. " There are several examples which	show	the <i>injustices</i>	the females meet. First
9	file1424769	condone what is being done in their country,	show	their <i>objections</i>	in their writings but
10	file1424780	virginity. Yes, virginity is another thing that	shows	the big <i>inequality</i>	between men and women
11	file1424793	supposed to grow up to be powerful. They don't	show	their <i>weaknesses</i>	. They are expected to
12	file1424827	houses or dormitory. Some parents don't	show	enough <i>interests</i>	to them, they may have

Figure 7.

Concordance lines of V n pattern of show in TICLE

1	file1429629	the argument point to statistics which	show	affirmative <i>action</i>	has not achieved its
2	file1429629	Age movement. <*> The above quote clearly	shows	a <i>consequence</i>	of the Teaching of New Age
3	file1429629	age such as kindergarten or first grade	showed	greater academic <i>achievement</i>	than did those
4	file1429629	argument, consisting of statistics that	show	the <i>ineffectiveness</i>	of the death penalty
5	file1429629	>. This is a good statement by Lewis to	show	the <i>affects</i>	of children if prayer was brought
6	file1429629	always in your body (even when you are not	showing	any <i>symptoms</i>	of sickness). We are presenting
7	file1429629	serve a negative effect, because it would	show	any <i>bias</i>	that may exist. Audience plays
8	file1429629	they use a rare case as an example, it	shows	the <i>inconsistency</i>	of our court system.
9	file1429629	pollution can be directed in this case by	showing	the <i>costs</i>	and rewards people receive from
10	file1429629	People need to be "awakened" in a sense and	shown	the negative <i>effects</i>	many of our trivial
11	file1429629	school age boys are generally expected to	show	<i>mascularity</i>	by demonstrating physical
12	file1429629	cry. What happens when boys mistakenly	show	<i>traces</i>	of any sensitivity? They are ridiculed

Figure 8.

Concordance lines of V n pattern of show in LOCNESS

Moreover, other patterns used in both corpora represent distinctive proportions. For instance, other common pattern in both corpora is verb followed by an object pronoun *V pro_object* n 11, 8.39 % in TICLE and n 5, 3.90 % in LOCNESS.

file1424660	world. You do not forget something which is showed you for hundred times in a day. If a producer
file1424763	throughout their lives. Such thoughts of men show us the injustice and inequality of men
file1424811	but day by day they grow and these fights show you very different and unknown sides of
file1424885	increase more and more in the US. We can show it with the experiment done on beagles
file1424906	more rich possibilities should given us to show ourselves , to develop ourselves and of
file1424908	to teach something to the students also showing them how to adopt and use their abilities
file1424923	situation that is the traineeship in the school shows her all she learns are not right. The

Figure 9.

Concordance lines of V pro_object pattern of the verb show in TICLE

file1429629	learn them. Students may find someone to show them morals, but usually, children entrapped
file1429629	Even though the government doesn't always show it they are suppose to have a sense of
file1429629	children. Instead the television bluntly shows them . My four year old draws her own conclusion
file1429629	escape and relaxation. Color theory has also shown us the moods that the simple nature of
file1429629	reasons seem to hold up, but one by one I will show you that these reasons are as ridiculous

Figure 10.

Concordance lines for V pro_object pattern of show in LOCNESS

Finally, two distinctive patterns were found in both corpora. The first one specific to Turkish EFL learners is *show to (pp)*, n 5, 3.81 %.

1 file1424646	the youth is kept secret. This change is shown to the girls as if they should be ashamed
2 file1424783	doctors and patients and the respect that is shown to doctor 's job starts diminishing day
3 file1424859	economic situation of the women, the respect showing to the men and the men's power in the society
4 file1424859	women's economic situation, the respect showing to the men in east and south east regions
5 file1424879	nobody likes his or her private life being shown to other people . Since the freedom of

Figure 11.

Concordance lines for V to(pp) pattern of show in TICLE

The other pattern which is *V wh compl.* n 13, 10.15 % in LOCNESS, is not found in TICLE or disregarded due to low frequency data. Thus, result signifies markedness of non-preference by non-native speakers. On the otherhand, all instances of pattern *V wh* in LOCNESS consist of the word "how" as it can be seen on the Figure 12.

file1429629	arguments concerning the death penalty and to	show	how	the value of human life is affected
file1429629	first to define affirmative action, then to	show	how	proponents defend its legality. I plan
file1429629	medicine and society. Further discussion will	show	how	people have improved their symptoms
file1429629	North Carolina's men's basketball coach. She	shows	how	women are being degraded through the
file1429629	pricing, and packaging. The next example	shows	how	sales procedures are wrong and are
file1429629	get other deals with them. This example	showed	how	a company was willing to give in at
file1429629	have a sense of power and authority. By	showing	how	the networks have so little regard
file1429629	and tearing open their vaginas. <*>. By	showing	how	society is already growing numb to
file1429629	against continuing genetic research. It would	show	how	genetic research and its application
file1429629	into reading. They only look at facts that	show	how	much college students drink, but they
file1429629	biological parents. These two set out to	show	how	welladjusted and ordinary Anna has
file1429629	code show both sides of the situation. They	show	how	cheating is becoming out of control
file1429629	the family. This is yet another point that	shows	how	the family has lost many of its traditional

Figure 12.

Concordance lines for V wh compl. in LOCNESS

Following Table 11, Table 12, and Table 13 represent primed nouns by both Turkish EFL learners and native speakers of English within *V n* pattern of the verb *show*. Additionally, semantic frames of those nouns were given in those tables.

Table 11.

Nouns and their Shared Semantic Frames of V n pattern of show in both Corpora

	TICLE	LOCNESS
Semantic Frames	Nouns	Nouns
Comparing: Different	difference, incompatibility, inequality	inconsistency
Success	achievement, success	achievement
Cause&Effect/Connection	effect	consequence, affect, relation, effect
Mental object: Means, method	system, way	way
General actions / making	action, act	preparation, activity
Respect	respect	respect
People: Male	male	male
Arts and crafts	picture	photograph

Table 11 above represents common primed nouns of *V n* pattern of *show* and their semantic frames. There are eight shared semantic frames which are *Comparing: Different*, *Success*, *Cause&Effect/Connection*, *Mental object: Means, method*, *General actions / making*, *Respect*, *People: Male*, and *Arts and crafts*. Additionally, some nouns are identical across both corpora such as, *achievement*, *effect*, *way*, *respect* and *male*. Therefore, collocated pattern *V n* carries the semantic senses “*give an exhibition of to an interested audience, give expression to*” and “*give evidence of, as of records*” across both corpora.

Table 12.

Nouns and their Distinctive Semantic Frames of V n pattern of Show in TICLE

TICLE	
Semantic Frames	Nouns
Strong obligation or necessity	loyalty, faithfulness
Social Actions, States And Processes	behaviour
In power	dictator, victory
Education in general	student
Drama, the theatre and show business	performance, scene
Work and employment: Generally	role
Weak	weakness
Warfare, defence and the army; weapons	war
Trying hard	effort
Thought, belief	attitude
Ethical	mercy
Degree: Non-specific	objection
Comparing: Similar	equality

Table 13.

Nouns and their Distinctive Semantic Frames of V n pattern of Show in LOCNESS

LOCNESS	
Semantic Frames	Nouns
People	child
Emotional Actions, States And Processes General	compassion, emotion
Comparing: Usual	tendency
Violent/Angry	violence
Useless	ineffectiveness
The universe	world
Noticeable	trace
Like	bias
Green issues	pollution
Fear/shock	fear
Belonging to a group	public
Disease	symptom
People: Female	woman

Table 12 and Table 13 show nouns and their distinctive semantic frames in both corpora. Those frames are: *Strong obligation or necessity, Social Actions, States And Processes, In power, Education in general, Drama, the theatre and show business, Work and employment: Generally, Trying hard, Thought, belief, Ethical, Degree: Non-specific, Comparing: Similar in TICLE and People, Emotional Actions, States And Processes General, Comparing: Usual, Violent/Angry, Useless, The universe,*

Noticeable, Like, Green issues, Fear/shock, Belonging to a group, Disease, People: Female in LOCNESS.

As it can be seen on the table, additional to their distinctiveness, there is no common marked sense of nouns and their semantic frames. Priming preferences of Turkish EFL learners and native speakers are distinguishable with use of *V n* pattern of *show*. However, semantic senses collocated pattern of *V n* carries are identical in both corpora which are as follows; “*give an exhibition of to an interested audience, establish the validity of something, as by an example, explanation or experiment*” and “*give expression to*”.

4.3.3. The Verb *CONSIDER* and Its Grammatical Behaviour in Both Corpora

On Table 3, the verb *consider* ranks fifth among top ten AKL verbs of TICLE and seventh in LOCNESS. Overall raw frequency and distribution proportion are n 124, 2.27 % in TICLE and n 99, 1.92 % in LOCNESS.

Table 14.

Log likelihood result of the verb consider

Verb	TICLE (O1)	%	LOCNESS (O2)	%	LL
<i>consider</i>	124	0.06	99	0.07	- 0.26

O1 is observed frequency in TICLE, O2 is observed frequency in LOCNESS,%1 and %2 values show relative frequencies in the texts,+ **indicates overuse** in O1 relative to O2, - **indicates underuse** in O1 relative to O2.

Although its rank across both corpora and raw frequency analysis, LL result ($p = -0.26$ $p < 0.05$) indicates underuse of the verb *consider* by Turkish EFL learners compared to American university students. However, this underuse profile as represented by LL result is not significant. Following Table 15 shows detailed analysis of collocated patterns of *consider* used along with their raw frequency counts and distribution percentages in both corpora.

Table 15.

Overall patterns of the AKL verb consider used in both corpora

TICLE		LOCNESS	
Patterns (n)	%	Patterns (n)	%
<i>V n</i> (64)	%51.61	<i>V n</i> (51)	%51.51
<i>V as(pp)</i> (14)*	%11.29	<i>V to-inf</i> (9)	%9.09
<i>V adj compl.</i> (9)	%7.25	<i>V adj compl.</i> (8)	%8.08
<i>V to-inf</i> (8)	%6.45	<i>V wh compl.</i> (6)*	%6.06

The upper-case V (verb group) word-class whose patterns on focus. v: verb group, n: noun group, adj: adjective group, adv: adverb group, that: clause introduced by that (realised or not), -ing: clause introduced by an '-ing' form, to-inf: clause introduced, by a to-infinitive form, wh: clause introduced by a wh-word (including how), pp: clause introduced by a preposition, v-ed passive structures, pro_object. object pronoun Asterisk * marked pattern structures in corpus.
n: raw frequency count of individual pattern. %: ratio of frequency count of an individual pattern to overall frequency count of all patterns used

Analysis results on Table 15 show collocated patterns of the verb *consider* in both corpora. Findings show that both Turkish EFL learners and American university students incline towards using AKL verb *consider* in *V n* pattern construction. Results are as n 64, 51.61 % in TICLE and n 51, 51.51 % in LOCNESS. Distribution proportions of the patterns (51,61 % in TICLE and 51,51 % in LOCNESS) are almost similar in both corpora. Concordance lines below shows those patterns as used in both corpora.

file1424660	advantages of these two inventions, we have to consider the disadvantages of them. These inventions
file1424676	fact besides all these things we should consider the education factor . Education helps
file1424698	re a wealthy person. maybe you will not consider other people , or wont think about any
file1424710	prepare students for real life. People who consider university degrees as an important factor
file1424701	completely true , at this point we should consider something more important than degrees.
file1424723	philosophers, doctors and everybody else, will consider this question for all time. My opinion
file1424724	people against euthanasia strictly. When we consider the recent developments in the field of
file1424724	euthanasia advocate their ideas. When we consider these points while deciding the euthanasia
file1424724	euthanasia immediately. Authorities should consider the problem from the perspective of the
file1424737	because of ethical reasons. These people consider the abortion as an unethical operation
file1424737	people who are against the abortion. They consider the situations only from one aspect. I
file1424730	place in these marriages. But we should consider other aspects under this subject. For example

Figure 13.

Concordance lines for the pattern V n of consider in TICLE

file1429629	infertile couples lives. The couple who is considering surrogacy view it as simply a way to fill
file1429629	offer their opinions on the subject. After considering these articles that cover both sides of
file1429629	schools adopt an attitude that carefully considers the individual beliefs of students. In
file1429629	argument. In order for an argument to be considered a strong argument , it must make an arguable
file1429629	relationship. Having sex just to have sex is considered casual sex . Casual sex is unacceptable
file1429629	To determine this question, we have to consider our definition of life and our definition
file1429629	cost. The cost here is more than money. Consider the price of emotions as well, to ourselves
file1429629	source of answers, of advice. I personally consider the essentials in life to be breathing,
file1429629	helping find jobs for the men, who were considered the breadwinners , and offer some food
file1429629	assumptions about the value of life. Life is considered unquestionable, but I would like to give
file1429629	with only the most severe situations being considered . However, with each acceptance the standards
file1429629	a diversity of willing workers, without considering the fundamental value of child care providers

Figure 14.

Concordance lines for the pattern V n of consider in LOCNESS

Other patterns which are also common in both corpora are as follows: the pattern *V adj compl.*; n 9, 7.25 % in TICLE, n 8, 8.08 % in LOCNESS, *V to-inf*; n 8, 6.45 % in TICLE and n 9, 9.09 % in LOCNESS.

file1424717	preventing the babies' justices. So we don't consider important their feelings. First of all,
file1424717	preventing the babies' justices. We don't consider important their feelings. We don't ask
file1424733	situation that poor family try to work more and consider more about the life conditions and this
file1424756	. They are the people who are respected, considered important , and the most powerful creature
file1424769	broadcasted in order to remove and ban anything considered offensive , unsuitable, dangerous or immoral
file1424821	conservatives. The goverment blocks internet sites considered offensive , while service providers practice
file1424849	interesting points is that animal testing is considered superior than other clinical researches
file1424895	conclusion, theoretical lessons shouldn't be considered less important than actually they are.
file1424916	education". People from all over the world consider important of education because they know

Figure 15.

Concordance lines for the pattern V adj compl. of the verb consider in TICLE

file1429629	assumptions about the value of life. Life is considered unquestionable , but I would like to give
file1429629	feel that there is any suicide that can be considered rational because all suicide fails to think
file1429629	Revolution. Even Benedict Arnold's actions were considered criminal only because of the date on which
file1429629	If that same family earns \$27,380, it is considered low-income . These definitions are used
file1429629	of the two genders. Moreover, they were considered very successful if they exuded male gender
file1429629	football players don't do anything that is considered rewarding . All you have to be able to
file1429629	, it's important that the wife's work be considered just as essential as that of her husband
file1429629	to be fixed? I believe when a female is considered equal to a male in the physical and emotional

Figure 16.

Concordance lines for the pattern V adj compl. of the verb consider in LOCNESS

Analysis results show that collocated patterns of the AKL verb *consider* used in both corpora and their proportions represent similarities. High frequency patterns are identical in both corpora.

However, in addition to common patterns, there are two distinctive patterns, one in each corpus, indicate particular preference by EFL learners and native speakers. *V as (pp)* pattern of the verb *consider* in TICLE; 14, 11.29 %, and the pattern *V wh compl.* in LOCNESS; n 6, 6.06 %. The former signify interlanguage markedness of Turkish EFL learners inclining towards using the pattern and the latter represents the priming of the pattern by native speakers of English in their argumentative essays.

file1424668	this century several inventions have been considered as a revolution , shaping the point of
file1424668	with the findings of earth so, that always considered as a matter of curiosity for so long in
file1424710	such cases, a university degree cannot be considered as a criterion for a position. The most
file1424710	this dilemma made of glass which may also considered as theoretical information . I do not ignore
file1424748	living' that lets this wildness? Why is death considered as a solution ? Does it really provide
file1424756	related to the 'man'. First of all, men are considered as the superior class and good qualities
file1424758	are not in contrast with each other but considered as two equal parts of a whole. In Western
file1424814	. Not only is it horrible but it is also considered as an evil act by some. Usually in such
file1424834	involving and speaking, making noise is considered as a sign of indiscipline. Likely, the
file1424837	to say, all males and females should be considered as one group . To speak of sex equality
file1424839	the beginning of the human race women are considered as an unvaluable specýes among the human
file1424868	the other hand, certain objection must be considered as jealousy or hostility. The good friendships
file1424878	special part according to laws, they are only considered as a human . Moreover, sex equality supports
file1424922	especially in Turkey. Universities which are considered as wonderlands are the dream of all youngs

Figure 17.

Concordance lines for the pattern V as(pp) of the verb consider in TICLE

file1429629	extremely important this issue is, especially considering how significant an education is to a student
file1429629	appropriate action, which will not be difficult considering how successful the two model approach has
file1429629	viewed as a potential sex partner. One must consider what it would be like for one woman to
file1429629	provokes thought in each individual. We must consider what the boundaries are on how much we
file1429629	something different from life. These are to be considered when deciding what makes our life important
file1429629	involved in these problems. The next step is to consider what can be done to lower the number of

Figure 18.

Concordance lines for the pattern V wh compl. of the verb consider in LOCNESS

Following Table 16, Table 17 and Table 18 represent primed nouns by both Turkish EFL learners and native speakers of English with *V n* pattern of the verb *consider*.

Table 16.

Nouns and their Shared Semantic Frames of V n pattern of consider in both Corpora

	TICLE	LOCNESS
Semantic Frames	Nouns	Nouns
Mental object:	notion, theory	perception
Conceptual object		
Generally kinds, groups, examples	aspect, side	form
Cause&Effect/Connection	factor, effect	consequence,
Work and employment:	role	breadwinner
Generally		
Education in general	test	preparation, activity

Table 16 represents common semantic frames of nouns, which are collocated with the pattern V n of the AKL verb *consider* in both corpora. Those frames are as follows: *Mental object: Conceptual object, Generally kinds, groups, examples, Cause&Effect/Connection, Work and employment: Generally*. Therefore the collocated pattern V n of the AKL verb *consider* carries those senses; “give careful consideration to, regard or treat with consideration, respect, and esteem”.

Table 17.

Nouns and their Distinctive Semantic Frames of V n pattern of Consider in TICLE

TICLE	
Semantic Frames	Nouns
Important	importance, matter
Comparing: Different	other, difference
Trying hard	struggle
Speech: Communicative	point
Sensory: Sound	noise
Pronouns	anything
People: Male	male
Mental object: Means, method	method
Linguistic Actions, States And Processes; Communication	seal
Law and order	punishment
Interested/excited/energetic	energy
Green issues	nature
Geographical terms	cove
Existing	reality
Evaluation: True	fact
Evaluation: Bad	disadvantage
Dead	suicide
Comparing: Similar	equality
Change	development

Table 18.

Nouns and their Distinctive Semantic Frames of V n pattern of Consider in LOCNESS

LOCNESS	
Semantic Frames	Nouns
Speech acts	definition, debate
Objects generally	vent, component
Getting and possession	possession, recipient
Thought, belief	feeling
The Media	pornography
Strong obligation or necessity	essential
Quantities	percentage
Politics	nazis
People: Female	female
Money: Cost and price	price
Language, speech and grammar	phrase
Knowledgeable	experience
Happy	joke
General appearance and physical properties	context
General actions / making	act
Exceed; waste	waste
Disease	pain
Crime	criminal
Comparing: Unusual	novel
Colour and colour patterns	color

Table 17 and Table 18 show selected nouns collocated with the pattern *V n* of the verb *consider* and their distinctive semantic frames across TICLE and LOCNESS. Those frames in TICLE are as follows: *Important, Comparing: Different, Trying hard, Speech: Communicative, Sensory: Sound, Pronouns, People: Male, Mental object: Means, method, Linguistic Actions, States And Processes; Communication, Law and order, Interested/excited/energetic, Green issues, Geographical terms, Existing, Evaluation: True, Evaluation: Bad, Dead, Comparing: Similar, Change.*

Additionally, those frames in LOCNESS are as follows: *Speech acts, Objects generally, Getting and possession, Thought, belief, The Media, Strong obligation or necessity, Quantities, Politics, People: Female, Money: Cost and price, Language, speech and grammar, Knowledgeable, Happy, General appearance and physical properties, General actions / making, Exceed; waste, Disease, Crime, Comparing: Unusual, Colour and colour patterns.*

Those nouns and their semantic frames are quite varied. There is no common ground for the overall sense that nouns carry and there is no sign of markedness. Hence, it is to be concluded that primings of nouns collocated with the pattern are notably different, which may signify different priming effects. This overall distinctiveness across both corpora may indicate varied use of the verb *consider* and learners' acquisition of the verb through different encounters. Primings are supposed to be context depended. Varied examples of collocational primings are indication of encountering the same lexical item in different contexts.

However, apart from individual senses nouns carry, based on the frames of nouns, it can be claimed that the AKL verb *consider* carries following semantic senses in TICLE: *take into consideration for exemplifying purposes, show consideration for; take into account, deem to be.* Meanwhile, the pattern in LOCNESS carries following senses: *“show consideration for; take into account, think about carefully; weigh, judge or regard; look upon; judge”.*

4.3.4. The Verb *SUFFER* and its Grammatical Behaviour in Both Corpora

On Table 3, the verb *suffer* ranks sixth among top ten AKL verbs of TICLE and fiftieth in LOCNESS. Overall raw frequency and distribution proportion are 118, 2.27 % in TICLE and 29, 0.56 % in LOCNESS. Rank orders of the verb and proportion results alone indicate overuse of it by Turkish EFL learners.

Table 19.

Log likelihood result of the verb suffer

Verb	TICLE (O1)	%	LOCNESS (O2)	%	LL
<i>suffer</i>	118	0.06	29	0.02	+ 34.76

O1 is observed frequency in TICLE, O2 is observed frequency in LOCNESS, %1 and %2 values show relative frequencies in the texts, + **indicates overuse** in O1 relative to O2, - **indicates underuse** in O1 relative to O2.

Additionally, LL result ($p = + 34.76$, $p < 0.05$) verifies overuse and displays significant. Turkish EFL learners overused the AKL verb *suffer* in their argumentative essays when compared to American university students, native speakers of English. Following Table 20 displays patterns of the verb in both corpora.

Table 20.

Overall patterns of the AKL verb suffer used in both corpora

TICLE		LOCNESS	
Patterns (n)	%	Patterns (n)	%
<i>V n</i> (20)	%16.94	<i>V</i> (13)	%44.82
<i>V from(pp)</i> (25)*	%21.18	<i>V n</i> (6)	%20.68

The upper-case V (verb group) word-class whose patterns on focus. v: verb group, n: noun group, adj: adjective group, adv: adverb group, that: clause introduced by that (realised or not), -ing: clause introduced by an '-ing' form, to-inf: clause introduced, by a to-infinitive form, wh: clause

introduced by a wh-word (including how), pp: clause introduced by a preposition, v-ed passive structures, pro_object object pronoun Asteriks * marked pattern structures in corpus.

n: raw frequency count of individual pattern. %: ratio of frequency count of an individual pattern to overall frequency count of all patterns used

There are only two collocated patterns found across both corpora. The most common pattern in TICLE is verb followed preposition *from V from (pp)* 25, 21.18 % and other pattern is verb followed by a noun or noun group *V n*: 20, 16.94 %. The AKL verb *suffer* is not as much preferred in LOCNESS. Additionally, patterns found show distinctive usage when Turkish EFL learners and native speakers of English compared. The most common pattern in LOCNESS is the usage of intransitive verb *suffer* alone, *V*; n 13, 44.82 %. Secondly, other collocated pattern that is common in LOCNESS is verb followed by a noun or noun group, *V n*; n 13, 20.68 %. The pattern *V from* was not found in LOCNESS, in contrast to its being highly primed in TICLE. Concordance lines represent examples from both corpora.

file1424697	better to have more money. Who wants to	suffer	privation	? All the people want to live
file1424722	religion in most of the countries. People who	suffer	a painful	disease want to die without
file1424725	incurably ill and in pain , Why do they have to	suffer	pain	when there is no way to be well again
file1424725	for h/her but they forget nobody wants to	suffer	pain	when the person is just kept alive
file1424726	solution for the patient no matter how much	suffer	the patient	has at that time. Moreover
file1424727	should decide the death. No one can want to	suffer	pain	and deserves to be in pains. If there
file1424802	if euthanasia is allowed , everybody who	suffers	a lot	will easily apply that. It should
file1424825	married women rather than their husband	suffer	the career	penalties of producing and raising
file1424818	happened. A gigantic cloud leaking from the	suffered	reactor	spread inside Europe in a 2000
file1424819	out of their misery rather than let them	suffer	intolerable	pain , so why let human beings
file1424819	intolerable pain, so why let human beings	suffer	the same	amount of pain? Here is where
file1424830	married women rather than their husbands	suffer	the career	penalties of producing and raising

Figure 19.

Concordance lines for the pattern *V n* of the AKL verb *suffer* in TICLE

file1429629	unconstitutional. They say that other groups suffer reverse discrimination due to the awarding
file1429629	Mr. and Mrs Doe, for example, will have to suffer the loss of their child, a child that they
file1429629	study of housewives showed that these women suffered feelings of desperation, and they termed
file1429629	woman chooses not to follow the herd, is to suffer a harder life by eliminating a part of
file1429629	decides on motherhood alone, the family suffers the loss of her income while gaining her
file1429629	constitution liberty, then we will have suffered a far greater injury than drugs even inflict

Figure 20.

Concordance lines for the pattern V n of the AKL verb suffer in LOCNESS

file1424652	, the elderly people and the people who suffer from heart disease and respiratory illnesses
file1424686	full of physiological problems or people suffering from poverty . That's why I think that
file1424719	medicines everyday and saves patients, who are suffering from the fatal diseasters , could not cured
file1424722	Euthanasia is a painless killing of people suffering from incurable, painful diseases . It is
file1424727	of the euthenasia. Because if the person suffers from severe pain and there is no cure for
file1424775	will begin soon. The innocent people who suffer from the fear of a new war, will be killed
file1424777	true for him/her. Because she/he is deeply suffering from the illness and will want to finish
file1424812	to be unbearable and both of the couple suffer from this situation and become unhappy.
file1424816	in certain circumstances. If a person is suffering from chronic pain , then is the person's
file1424817	can live only thanks to the machines or suffer from his illness . I had watched striking
file1424863	husband hits her, there are many women suffering from this problem and they can't do anything

Figure 21.

Concordance lines for the pattern V from(pp) of AKL the verb suffer in TICLE

file1429629	painful life. I feel that if the person is suffering so much and he or she feels that to go
file1429629	compared to the past depression many have suffered through. In the end, most physicians share
file1429629	questions, then the consequences America is suffering because of abortion can be compared to
file1429629	right thing by aiding patients who are suffering , however, the neglection to name the consequences
file1429629	in vain -- For 40 years, the people had suffered under a communist regime that had not allowed
file1429629	decides to stay home and raise a family often suffers in a more subtle way: Society, since the

Figure 22.

Concordance lines for the pattern V of the AKL verb suffer in LOCNESS

Table 21, 22, and 23 below display the nouns collocated with the pattern *V n* of the AKL verb *suffer* and their shared and distinctive semantic frames across two corpora.

Table 21.

Nouns and their Shared Semantic Frames of patterns selected of Suffer in both Corpora

	TICLE	LOCNESS
Semantic Frames	Nouns	Nouns
Disease	pain, disease, illness, infection	injury, illness
Money: Debts	loss	loss

There are only two shared semantic frames of patterns selected of the AKL verb *suffer*, which are *Disease* and *Money: Debts*. Among those, two words are identical: *illness* and *loss*. General sense of nouns within those frames implies something bad or negative. Semantic frames of nouns collocated with the pattern *V n* therefore signify those senses of verb patterning as; *undergo (as of injuries and illnesses)* and *be set at a disadvantage*.

Table 22.

Nouns and their Shared Distinctive Frames of patterns selected of Suffer in TICLE

TICLE	
Semantic Frames	Nouns
Difficult	privation, problem
Science and technology in general	experiment
Quantities: little	deficiency
Quantities	amount
Money: Lack	poverty
Law and order	penalty
Government	bureaucracy
General actions / making	spread
Fear/shock	fear
Existing	situation

Table 23.

Nouns and their Shared Distinctive Frames of patterns selected of Suffer in LOCNESS

LOCNESS	
Semantic Frames	Nouns
Thought, belief	feeling
Sad	depression
Comparing: Different	discrimination
Alive	life

Table 22 and Table 23 represent the nouns collocated with the verb *suffer* and their distinctive semantic frames. Those frames in TICLE are: *Difficult, Science and technology in general, Quantities: little, Quantities, Money: Lack, Law and order, Government, General actions / making, Fear/shock, Existing* and in LOCNESS: *Thought, belief, Sad, Comparing: Different, Alive*. Due to low frequency count in LOCNESS, representativeness of the table is low, however, still it can be interpreted that there is a common sense among nouns whose semantic frames are either shared or distinctive. Regardless of patterns they are collocated, sense “*something is bad, negative*” is shared among those nouns. Hence, it can be claimed that semantic sense which collocated pattern carries are also shared. Those senses are as follows: *put up with something or somebody unpleasant, feel unwell or uncomfortable*.

4.3.1.5. The Verb **PROVIDE** and its Grammatical Behaviour in Both

As it is represented in Table 3, the verb *provide* is ranked seventh in TICLE and ninth in LOCNESS. The raw frequencies and distribution proportion among overall AKL verbs used are as follows: n 115, 2.10 % in TICLE and n 81, 1.57 % in LOCNESS. The results imply overuse of the verb by Turkish EFL learners. LL result is also computed to verify results.

Table 24.

Log-likelihood result of the verb provide.

Verb	TICLE (O1)	%	LOCNESS (O2)	%	LL
<i>provide</i>	115	0.06	81	0.05	+ 0.15

O1 is observed frequency in TICLE, O2 is observed frequency in LOCNESS, %1 and %2 values show relative frequencies in the texts, + **indicates overuse** in O1 relative to O2, - **indicates underuse** in O1 relative to O2.

LL results ($p = + 0.15$, $p < 0.05$) on Table 24 verify the overuse of the verb *provide* by Turkish EFL learners when they are compared to native speakers of English. However, the result indicating the overuse of the verb by Turkish EFL learners is not significant.

Table 25.

Overall patterns of the AKL verb provide used in both corpora

TICLE		LOCNESS	
Patterns (n)	%	Patterns (n)	%
<i>V n</i> (82)	%71.30	<i>V n</i> (60)	%71.42

The upper-case V (verb group) word-class whose patterns on focus. v: verb group, n: noun group, adj: adjective group, adv: adverb group, that: clause introduced by that (realised or not), -ing: clause introduced by an '-ing' form, to-inf: clause introduced, by a to-infinitive form, wh: clause introduced by a wh-word (including how), pp: clause introduced by a preposition, v-ed passive structures, pro_object object pronoun Asteriks * marked pattern structures in corpus. n: raw frequency count of individual pattern. %: ratio of frequency count of an individual pattern to overall frequency count of all patterns used

Due to minimum threshold limitation, only significant pattern of the AKL verb *provide* found in both corpora is as verb followed by a noun or noun group *V n*. Frequency and distribution proportions of the pattern across two corpora represent similarities. Raw frequency of the pattern is 82 in TICLE and 60 in LOCNESS, meanwhile percentages are as follows; 71.30 % in TICLE and 71.42 % in LOCNESS. Overall data result indicates, first of all, the AKL verb is overused by Turkish EFL learners in their argumentative essays compared to native speakers of English, secondly primed syntactic pattern is identical and its statistics analysis resembles close values. Concordance lines below shows the grammatical pattern as used in both corpora.

file1424675	great help in business field, because it	provided	fast	interaction	and communication among
file1424675	other aspect of the subject; computers	provided	advantages	for customers too. In previous	
file1424675	communication device for people. I think TV also	provides	a common	culture	for people who live in
file1424675	Consequently, technology does not always	provide	positive	improvement	on people, it can
file1424675	inventions helped people to improve themselves,	provided	fast	communication	between people all around
file1424656	a person to play a game. Then, internet	provides	easiness	to researchers who want to search	
file1424656	lost in books. By connecting internet you	provide	advantage	of obtaining information that	
file1424681	are earning money protecting the home and	providing	the	necessities	. So they should be strong
file1424707	government can help the universities and	provide	healthier	systems	and regulations for education
file1424712	graduates. Because the universities don't	provide	enough	opportunities	to practice and prepare
file1424712	tutors and university programmes. Also not	providing	necessary	resources	and environment, the
file1424725	to go to court , and legal aid does not	provide	assistance	in such cases . So she lay	

Figure 23.

Concordance lines for the V n pattern of the AKL verb provide in TICLE

file1429629	advocate the twomodel approach not only	provide	effective	reasoning	, but also give real
file1429629	case against teaching New Age ideas by	providing	testimonies	from people who have been	
file1429629	objectives of school integration is to	provide	students	from the inner city with a better	
file1429629	not out of requirement. It would still	provide	the	oppotunity	to gather together, and
file1429629	. Many of these orphanages, did in fact	provide	a well balanced	lifestyle	for their orphans
file1429629	if the parents can prove that they are	providing	the	child	with a caring and nurturing atmosphere
file1429629	In addition to his strong claim Shriver	provides	numerous	pieces	of supporting information
file1429629	ability to persuade because he does not	provide	enough factual	information	to support his
file1429629	this, many universities add courses and	provide	new	things	such as research labs and new
file1429629	the decision. Because the law does not	provide	these	safeguards	, euthanasia should not
file1429629	passed on. Genetic counselors are failing to	provide	their	insight	to patients they serve. This
file1429629	genetic anomalies. Second, they try to	provide	answers	about the likelihood of bearing	

Figure 24.

Concordance lines for the V n pattern of the AKL verb provide in LOCNESS

Following Table 26, Table 27, and 28 represent primed nouns by both Turkish EFL learners and native speakers of English with *V n* pattern of the verb *provide*.

Table 26.

Nouns and their Shared Semantic Frames of V n pattern of provide in both Corpora

	TICLE	LOCNESS
Semantic Frames	Nouns	Nouns
Speech:	communication	speech
Communicative		
Helping	assistance,comfort	protection,service
Giving	resource	supply
General actions / making	practice	safeguard

On Table 26, there are only four semantic frames shared among nouns that are primed with the pattern *V n* of the verb *provide*. Those frames are as follows: *Speech: Communicative, Helping, Giving, General actions / making*. Additionally, there are only two words which are synonyms *resource* and *supply*, however there are no identical words. Finally, based on the shared frames, it can be said that collocated pattern *V n* of the AKL verb *provide* carries this sense; “*make a possibility or provide opportunity for; permit to be attainable or cause to remain*”.

Table 27.

Nouns and their Distinctive Semantic Frames of V n pattern of provide in TICLE

TICLE	
Semantic Frames	Nouns
Tough/strong	strength
Time: Beginning	continuation
The Media	medium
Success	effectiveness
Strong obligation or necessity	necessity
Speech: Communicative	communication
Speech acts	criticism
Science and technology in general	technology
Safe	refuge
Reciprocal	interaction
Mental object: Means, method	solution
Learning	learning
General appearance and physical properties	condition
Easy	easiness
Comparing: Similar	equality
Calm	peace

Table 28.

Nouns and their Distinctive Semantic Frames of V n pattern of provide in LOCNESS

LOCNESS	
Semantic Frames	Nouns
Medicines and medical treatment	prescription ,treatment
Law and order	testimony, discipline
Work and employment: Generally	employment
Wanted	option
Understanding	insight
The Media: TV, Radio and Cinema	viewer
Suitable	convenience
Social Actions, States And Processes	lifestyle
Part	piece
Money and pay	income
Interested/excited/energetic	excitement
Government	authority
Generally kinds, groups, examples	sense
Food	sustenance
Evaluation: True	evidence
Entertainment generally	competition
Education in general	training

Table 27 and 28 show the selected nouns primed with the *V n* pattern of the AKL verb *provide* and their distinctive semantic frames across both corpora. Those frames are in TICLE as: *Tough/strong, Time: Beginning, The Media, Success, Strong obligation or necessity, Speech: Communicative As, Speech acts, Science and technology in general, Safe, Reciprocal, Mental object: Means, method, Learning, General appearance and physical properties, Easy, Comparing: Similar, Calm* and in LOCNESS: “*Medicines and medical treatment, Law and order, Work and employment: Generally, Wanted, Understanding, The Media: TV, Radio and Cinema, Suitable, Social Actions, States And Processes, Part, Money and pay, Interested/excited/energetic, Government, Generally kinds, groups, examples, Food, Evaluation: True, Entertainment generally, Education in general.*”

It can be inferred from the table that semantic frames are quite varied across two corpora and they do not display any common ground. Overall frames lack of shared sense, hence it is not possible to mention a sense of general semantic preference for the semantic frames of the nouns collocated when Turkish EFL learners and native speakers are compared in their use of the AKL verb *provide*. However, in each corpus *V n* pattern of the AKL verb *provide* displays following common senses: “*give something useful or necessary to, (determine (what is to happen in certain contingencies), especially by including a proviso condition or stipulation), make a possibility or provide opportunity for; permit to be attainable or cause to remain*” in TICLE and in addition to those frames in TICLE, there is one extra sense in LOCNESS which is “*supply means of subsistence; earn a living*”.

4.3.1.6. The Verb *STUDY* and its Grammatical Behaviour in Both Corpora

The AKL verb *study* ranks eighth in TICLE while it interestingly ranks seventy-fifth in LOCNESS. Additionally, its raw frequency counts and distribution percentages are as follows: n 111, 2.03 % and n 18, 0.35 %. Both raw frequency and proportions indicate overuse of the AKL verb *study* by Turkish EFL learners compared to native speakers of English. Additionally, LL calculation, therefore, indicates significance of overuse.

Table 29.

Log likelihood result of the AKL verb study

Verb	TICLE (O1)	%	LOCNESS (O2)	%	LL
<i>study</i>	111	0.06	18	0.01	+ 49.98

O1 is observed frequency in TICLE, O2 is observed frequency in LOCNESS, %1 and %2 values show relative frequencies in the texts, + indicates overuse in O1 relative to O2, - indicates underuse in O1 relative to O2.

In addition to raw frequency counts and distribution percentages, LL results ($p = + 49.98$, $p < 0.05$) indicate overall overuse of the AKL verb *study* and it is highly significant. In other words, Turkish EFL learners significantly overused the AKL verb *study*.

When investigated in details, it was found out that low frequency of the AKL verb *study* was due to English native speakers' preference of using near synonym verbs such as *learn* n 48 in identical structures with similar sense and verbs such as *consider* n 99 with similar semantic sense. However, structures used with the verb may differ.

Following table indicates overall collocated patterns of the verb across both corpora.

Table 30.

Overall patterns of the AKL verb study used in both corpora

TICLE		LOCNESS	
Patterns (n)	%	Patterns n	%
<i>V</i> (74)	%66.66	<i>V n</i> (12)	%66.66
<i>V n</i> (23)	%20.72		
<i>V for(pp)</i> (9)	%8.10		
<i>V to-inf</i> (5)	%4.50		

The upper-case V (verb group) word-class whose patterns on focus. v: verb group, n: noun group, adj: adjective group, adv: adverb group, that: clause introduced by that (realised or not), -ing:

clause introduced by an ‘-ing’ form, to-inf: clause introduced, by a to-infinitive form, wh: clause introduced by a wh-word (including how), pp: clause introduced by a preposition, v-ed passive structures, pro_object. object pronoun Asteriks * marked pattern structures in corpus. n: raw frequency count of individual pattern. %: ratio of frequency count of an individual pattern to overall frequency count of all patterns used.

There are only three patterns used in TICLE while only one was found in LOCNESS. Therefore, only pattern, which is common in both corpora, is verb followed by a noun or noun group Vn . Raw frequency of the pattern is 23 in TICLE and 12 in LOCNESS while distribution percentages 20.72 % in TICLE and 66.66 % in LOCNESS. Overall results indicate preference of the pattern Vn by native speakers while Turkish EFL learners represent interlanguage markedness in their usage of the AKL verb *study* mostly in intransitive constructions (pattern V alone) and mono-transitive constructions (pattern Vn).

file1424647	will not even notice. I think that if they	study	instead of using their brain to find ways
file1424648	daughters are not permitted by their fathers to	study	at schools. I'm going to tell about an
file1424650	subjects are difficult and too much to	study	, teacher is not good etc. nobody says
file1424685	their undeveloped characters. When I was	studying	at high school our neighbor's number came
file1424685	The thing I want to say that you can't	study	at university without money. Firstly, to
file1424685	win university exam you must pay fee for	studying	at a university. And also, when we compare
file1424685	conditions. So, if you have got money you can	study	at special school's and university, if
file1424685	university, if you haven't got money you can't	study	in these better conditions or you can't
file1424745	earning money in a short way, the other likes	studying	hard. One always lies, the other talks
file1424754	plagiarists are not punished. The student, who	studies	very hard is punished by giving lower mark
file1424766	want to know them, the conditions they	study	more. I believe that more experience is
file1424772	their knowledge in the fields that they	study	. For instance, I am a student at English

Figure 25.

Concordance lines for the V pattern of the AKL verb study in TICLE

file1424706	second-grade university student who is studying agriculture . He is keep memorizing Latin
file1424716	Turkey. Because a student who does not study grammar on her own by solving questions
file1424766	but being a teacher! ! ! I do not want to study lesson as ý really get bored. Again the
file1424773	learn practical lessons. Of course. we study our lessons therotically. and the area
file1424847	should focus their students on effective studying methods , as well as creating a good family
file1424888	begin to cheat consciously. They do not study their exams , and they see cheating as
file1424900	theoretical knowledge so students always study theoretical knowledges and also students
file1424900	knowledge and working in real life. Students study their lessons , do their homeworks, projects
file1424903	necassary subject for the exam. That we study some subject each time is sign of theoretical
file1424909	circumstances. For instance, a student who is studying a foreign language should support his knowledge
file1424914	science as a whole. Although, a student studying philosoph will not benefit these multitude
file1424921	begin with we can talk about the students' studying habits . Mostly their only aim is to pass

Figure 26.

Concordance lines for the V n pattern of the AKL verb study in TICLE

file1429629	scientifically prestigious man's theory. If students study various myths and theories in the classroom
file1429629	process of questioning, testing, or just studying such accepted theories "fires the imagination
file1429629	beliefs like evolution and simultaneously study creation because it elicits thought and
file1429629	Beneficial Plant Research Association, who studies plants used in traditional cultures for
file1429629	counselors do three main things. First, they study the relation between genotypes and phenotypes
file1429629	male. My native tongue is English. I am studying business writing with a political science
file1429629	Nixon appointed a bipartisan commission to study marijuana . In 1972 the Schafer Commission
file1429629	Interactionists believe that when trying to study a social problem the way people see the
file1429629	around us is opening up, the avalibility to study cultural difference and reflect the knowledge
file1429629	educators. Until I was 15, I was unable to study any foreign language at all, and even at
file1429629	a hard job. They feel that teachers just study the material and feed it back to the students
file1429629	field of their major. Students can read and study textbook theories and examples, but it

Figure 27.

Concordance lines for the V n pattern of the AKL verb study in LOCNESS

Other patterns found only in TICLE are as follows: verb followed by preposition *for*, *V for(pp)* 9, 8.10 % and verb followed an infinitive verb, *V to-inf* 5, 4.50 %. Concordance lines above show usage of those patterns in texts.

file1424670	try to understand what is written and will study to find out what to write in order to communicate
file1424766	care the courses exactly. The students who study just to pass the exams are getting educated
file1424805	graduate from the school, they have got much to study to be successful for exams. Another suggestion
file1424893	think, I believe. Because they learn and study not only to translate with only a dictionary
file1424907	in order to pass thei class. They don't study to learn . Then they easily forget all
file1424647	reasons. They cheat if they do not want to study for the exam , if the questions are too
file1424650	students there are always some students who study for the exam , other students decide the
file1424716	institution at the highest level, where people study for a degree . University is the highest
file1424767	of the visa system that students have to study for fear that they can pass the exam so
file1424772	institutions at the highest level, where you study for a degree . They have an important and
file1424815	<ICLE-TR-CUK-0172.1> Every year millions of students study hard for an important exam which is called
file1424893	interested it will probably turn into a hell studying for the lesson and thinking on them. What
file1424894	learn things easily, their aim becomes just studying for the exams and getting good marks. I
file1424902	good universities. This is why they start studying for the entrance exams as much as two years

Figure 28.

Concordance lines for the pattern V for(pp) and V to-inf of the AKL verb study in TICLE

Following Table 31, Table 32, and 33 show the nouns and their semantic frames collocated with the pattern *V n* of the AKL verb *study*.

Table 31.

Nouns and their Shared Semantic Frames of V n pattern of study in both Corpora

	TICLE	LOCNESS
Semantic Frames	Nouns	Nouns
Language, speech and grammar	grammar, language	language
Mental object:	subject	theory
Conceptual object		

As it can be seen on Table 31, there are only two shared semantic frames across both corpora. Those frames are *Language, speech and grammar* and *Mental object*:

Conceptual object. First frame includes words related to *language; grammar* and *language* and the other one includes words related to *mental object; subject* and *theory*. Out of five nouns, only the word *language* is identical across both corpora. Therefore, the pattern carries the following sense; *follow a course of study; be enrolled at an institute of learning*).

Table 32.

Nouns and their Distinctive Semantic Frames of V n pattern of study in TICLE

TICLE	
Semantic Frames	Nouns
Education in general	philosophy, lesson, exam, teacher
Mental object: Means, method	method, style
Farming & Horticulture	agriculture, field
Social Actions, States And Processes	habit
Pronouns	everything
People	person
Law and order	protocol

Table 33.

Nouns and their Distinctive Semantic Frames of V n pattern of study in LOCNESS

LOCNESS	
Semantic Frames	Nouns
Substances and materials generally	material
Smoking and non-medical drugs	marijuana
Religion and the supernatural	myth
Plants	plant
General actions / making	creation
Difficult	problem
Comparing: Different	difference
Cause&Effect/Connection	relation
Business: Generally	business

Table 32 and Table 33 report the nouns selected and their distinctive semantic frames when two corpora are compared. Those frames are in TICLE; *Education in general, Mental object: Means, method, Farming & Horticulture, Social Actions, States And Processes, Pronouns, People and Law and order* while they are as follows in LOCNESS: *Substances and materials generally, Smoking and non-medical drugs, Religion and the supernatural, Plants, General actions / making, Difficult, Comparing: Different, Cause&Effect/Connection, Business: Generally*. As it can be seen, there is no common ground for the frames. Furthermore, senses the verb pattern *V n* carries are quite distinguishable; “*be a student of a certain subject, learn by reading books*” in TICLE while it is “*consider in detail and subject to an analysis in order to discover essential features or meaning*” in LOCNESS.

Additional analysis of nouns and their semantic frames, which are collocated with other patterns of the AKL verb *study* in TICLE, reveals the common primings by Turkish EFL learners. The table below represents the nouns in other patterns and their semantic frames in TICLE.

Table 34.

Nouns Collocated with other patterns of the AKL verb study and their Semantic Frames

TICLE	
Semantic Frames	Nouns
Education in general	exam, lesson, university, school, college
Degree: Non-specific	degree
Learning	learn
Parts of buildings	department

As it can be seen on Table 34, primed nouns are mostly covered in frame *Education in general*. Also, other three frames, *Learning* and *Degree: Non-specific*, carry the sense of relation to education and education related settings. Therefore, when considered along with previous data results, it can be claimed that Turkish EFL learners of English incline towards using the AKL verb *study* with the nouns carrying the sense of learning, education and related semantic frames which represent the same verb senses. As a result, additional analysis indicates limited sense of the verb and its patterns used by Turkish EFL learners.

4.3.1.7. The Verb *PREVENT* and its Grammatical Behaviour in Both Corpora

Table 3 displays the rank orders of the AKL verb *prevent* in both corpora. It ranks ninth in TICLE while it ranks thirtieth in LOCNESS. Raw frequency of the verb across two corpora is as follows: 97 in TICLE and 36 in LOCNESS. Therefore, the AKL verb *prevent* is not among the top ten AKL verb in LOCNESS. Additionally,

distribution percentages are 1.77 % in TICLE and 0.70 % in LOCNESS, indicating overuse by Turkish EFL learners.

Table 35.

Loglikelihood result of the verb prevent

Verb	TICLE (O1)	%	LOCNESS (O2)	%	LL
<i>prevent</i>	97	0.05	36	0.02	+ 13.97

O1 is observed frequency in TICLE, O2 is observed frequency in LOCNESS, %1 and %2 values show relative frequencies in the texts, + indicates overuse in O1 relative to O2, - indicates underuse in O1 relative to O2.

Additional LL result ($p = + 13.97$, $p < 0.05$) verifies the overuse that was profoundly claimed by rank order, raw frequency and distribution percentage and indicates this overuse is significant. Additional pattern analysis is therefore to display syntactic collocation of the verb in texts.

Table 36.

Overall patterns of the AKL verb prevent used in both corpora

TICLE		LOCNESS	
Patterns (n)	%	Patterns n	%
<i>V n (68)</i>	%70.10	<i>V n (29)</i>	%80.55
<i>V pro_object (7)</i>	%7.21		

The upper-case V (verb group) word-class whose patterns on focus. v: verb group, n: noun group, adj: adjective group, adv: adverb group, that: clause introduced by that (realised or not), -ing: clause introduced by an '-ing' form, to-inf: clause introduced, by a to-infinitive form, wh: clause introduced by a wh-word (including how), pp: clause introduced by a preposition, v-ed passive structures, pro_object object pronoun Asteriks * marked pattern structures in corpus. n: raw frequency count of individual pattern. %: ratio of frequency count of an individual pattern to overall frequency count of all patterns used

Table 36 displays significant collocated patterns of the AKL verb *prevent* used in both corpora. There is only pattern common in both TICLE and LOCNESS that is the pattern verb followed by a noun or noun group *V n*. Raw frequency counts are 68 in TICLE and 29 in LOCNESS. Additionally, distribution percentages 70.10 % in TICLE and 80.55 % in LOCNESS indicate preference of the pattern by both Turkish EFL learners and native speakers of English.

file1424691	themselves but also for the others. In order to	prevent	the <i>evil</i> ; an individual must limit own
file1424692	leave with sufficient money. We have to	prevent	the <i>money</i> to be No 1 in our lives. We have
file1424695	industrial wastes, wouldn't do anything to	prevent	these <i>wastes</i> . In order not to spend money
file1424717	living baby, it is also important we are	preventing	the <i>babies</i> ' justices. We don't consider
file1424718	which involves not making the effort to	prevent	<i>death</i> . It is the perfect alibi for a
file1424725	is actually belong to them because they	prevent	<i>euthanasia</i> and they suffered ill people
file1424733	economic reasons, an abortion may also	prevent	the bad <i>results</i> , problems on both parents
file1424743	Firstly, termination of a pregnancy may	prevent	some social <i>problems</i> that can occur if
file1424748	the government has to find solutions to	prevent	<i>starvation</i> , unemployment, inequality
file1424757	clean, avoid the Ozone layer damages and	prevent	acid <i>rain</i> . By this way, it helps to prevent
file1424759	desecration. While these events occur	prevent	gender <i>desecration</i> . but it will be
file1424762	country has to keep its regularity and	prevent	<i>anarchy</i> to go on its existence. However

Figure 29.

Concordance lines for the pattern V n of the AKL verb prevent in TICLE

file1429629	wrapped doses of products such as clot	preventing	agent <i>coumadin</i> and pain killers percocet
file1429629	killers percocet and percodan. Unit doses	prevent	<i>mixups</i> which could put a client in danger
file1429629	long term effects of steroid usage and	prevent	drug <i>usage</i> among student and professional
file1429629	athletes it would lesson and soon even	prevent	the <i>use</i> of performance enhancing drugs.
file1429629	are the leaders of the world taking to	prevent	harmful <i>consequences</i> . By using Peter Aldous
file1429629	year that birth control is inadequate for	preventing	teen <i>pregnancy</i> and condoms are useless
file1429629	teen pregnancy and condoms are useless in	preventing	the <i>spread</i> of disease. Also taught in his
file1429629	the nausea associated with chemotherapy,	prevent	<i>blindness</i> induced by glaucoma, serve as
file1429629	of the poor. This attempt did not help	prevent	<i>homelessness</i> . The establishment of poorhouses
file1429629	the laws of human evolution in order to	prevent	<i>interference</i> with those laws . Thus, to
file1429629	more educated about their bodies, how to	prevent	<i>disease</i> , how to better plan their families
file1429629	-9). Federal law requires gun buyers to	prevent	<i>identification</i> and to sign a form stating

Figure 30.

Concordance lines for the pattern V n of the AKL verb prevent in LOCNESS

The other usage of the verb includes pattern, verb followed by an object pronoun *V pro_object* is found only in TICLE and its raw frequency is n 7 and distribution percentage is 7.21 %.

file1424677	put parries in front of women, they try to prevent them earning money. What should women do
file1424747	poor , educating the children and by this, prevent them becoming a potential criminals for
file1424748	people's lack of attention on politics and prevent them to see the realities. Therefore, the
file1424840	effected from their feelings too much, and this prevents them from giving the right decision: This
file1424888	obligatory to spend many hours to study. This can prevent them from going for a walk with their friends
file1424879	do their jobs in a right way then nobody prevent them from doing their duties. So that the
file1424879	conscious about the events around us. If we prevent them from doing their duties, then we limit

Figure 31.

Concordance lines for the pattern *V pro_object* of the AKL verb prevent in TICLE

Following Tables 37, 38, and 39 represent nouns and their both common and distinctive semantic frames across two corpora.

Table 37.

Nouns and their Shared Semantic Frames of V n pattern of prevent in both Corpora

	TICLE	LOCNESS
Semantic Frames	Nouns	Nouns
Dead	death	killer, murder, suicide
Existing	event, situation	protection,service
Difficult	problem	problem
Crime	crime	crime
Cause&Effect/Con nection	results	consequence
Anatomy and physiology	pregnancy	pregnancy

Table 37 displays the selected nouns and their semantic frames that are common in both corpora. Those frames are *Dead*, *Existing*, *Difficult*, *Crime*, *Cause&Effect/Connection*, *Anatomy and physiology*. As it can be seen on Table 37, there are three identical words; *problem*, *crime* and *pregnancy*. Additionally, there are two words that are synonymies; *result* and *consequence*. Lastly, words, *death*, *killer*, *murder*, and *suicide* resemble semantic senses. Therefore there are two verb senses of the pattern: “*stop (someone or something) from doing something or being in a certain state and keep from happening or arising; make impossible*”

Table 38.

Nouns and their Distinctive Semantic Frames of V n pattern of prevent in TICLE

TICLE	
Semantic Frames	Nouns
Thought, belief	creativity, attitude, feeling
Green issues	acid_rain, pollution
Comparing: Different	discrimination, inequality
Work and employment: Generally	work
Violent/Angry	violence
Sports	hunter
Sad	suffering
Lack of food	starvation
Kin	family
Exceed; waste	waste
Evaluation: Bad	bad
Change	happening

Table 38 displays the nouns and their semantic frames which are distinctive across TICLE and LOCNESS. Those frames are *Thought, belief, Green issues, Comparing: Different, Work and employment: Generally, Violent/Angry, Sports, Sad, Lack of food, Kin, Exceed; waste, Evaluation: Bad, Change.*

Table 39.

Nouns and their Distinctive Semantic Frames of V n pattern of prevent in LOCNESS

LOCNESS	
Semantic Frames	Nouns
Disease	aids, disease
Belonging to a group	group, society
Using	use
Unseen	blindness
Time: Beginning	onset
Substances and materials generally	Coumadin
People: Female	woman
Participating	interference
Non-resident	homelessness
Language, speech and grammar	usage
Knowledgeable	identification
General actions / making	spread
Damaging and destroying	damage

Table 39 shows distinctive semantic frames which are as follows: *Disease, Belonging to a group, Using, Unseen, Time: Beginning, Substances and materials*

generally, People: Female, Participating, Non-resident, Language, speech and grammar, Knowledgeable, General actions / making, Damaging and destroying in LOCNESS.

Though high number of distinctive frames compared to shared frames, it can be claimed that there is a common sense across the meanings frames carry. Overall nouns collocated with the AKL verb *prevent* state negative sense such something bad, negative or a disease. Therefore, there is a common sense of meaning attributed to syntactic pattern *V n* such as; *keep from happening or arising; make impossible and stop (someone or something) from doing something or being in a certain state*. Additionally, shared frames of the nouns also represent the similar feature. Figure 29 and 30 above are to exemplify those senses with concordance lines for *V n* pattern. Therefore, it is to be claimed that there is no marked interlanguage feature in usage of the AKL verb *prevent* apart from markedness of native-like statements by Turkish EFL learners.

4.3.1.8. The Verb *CREATE* and its Grammatical Behaviour in Both Corpora

Table 3 shows that the AKL verb *create* ranks 10 in TICLE while it ranks 26 in LOCNESS. Additionally, its raw frequency and distribution percentage across two corpora is as follows: n 95, 1.74 % in TICLE; n 68, 1.32 % in LOCNESS. Overall results indicate overuse of the AKL verb by Turkish EFL learners. Further LL analysis is therefore to verify the claim and reveal significance of overuse.

Table 40.

Log likelihood result of the verb create

Verb	TICLE (O1)	%	LOCNESS (O2)	%	LL
<i>create</i>	95	0.05	68	0.05	+ 0.06

O1 is observed frequency in TICLE, O2 is observed frequency in LOCNESS, %1 and %2 values show relative frequencies in the texts, + indicates overuse in O1 relative to O2, - indicates underuse in O1 relative to O2.

Table 40 illustrates LL result of the AKL verb *create* for two corpora compared. In addition to raw frequency and distribution percentage, LL result points out the overuse of the verb by Turkish EFL learners. However, LL results ($p = + 0.06$, $p < 0.05$) reports overuse of the verb in TICLE is not significant compared to LOCNESS..

Table 41.

Overall patterns of the AKL verb create used in both corpora

TICLE		LOCNESS	
Patterns (n)	%	Patterns n	%
<i>V n</i> (79)	%83.15	<i>V n</i> (49)	%72.05
<i>V by(pp)</i> (6)	%6.31		

The upper-case V (verb group) word-class whose patterns on focus. v: verb group, n: noun group, adj: adjective group, adv: adverb group, that: clause introduced by that (realised or not), -ing: clause introduced by an ‘-ing’ form, to-inf: clause introduced, by a to-infinitive form, wh: clause introduced by a wh-word (including how), pp: clause introduced by a preposition, v-ed passive structures, pro_object. object pronoun Asterisk * marked pattern structures in corpus. n: raw frequency count of individual pattern. %: ratio of frequency count of an individual pattern to overall frequency count of all patterns used.

Table 41 reports collocational syntactic patterns of the AKL verb *create* across two corpora. As it can be seen on Table 34, the pattern *V n*, verb followed by a noun or noun group, ranks first in both corpora: n 79, 83.15 % in TICLE and n 49, 72.05 % in LOCNESS. Both Turkish EFL learners of English and English native speakers rely on the use of the identical pattern of the AKL verb *create*. Additionally, it was found that another pattern, though low frequency count and low distribution percentage, the pattern verb followed by preposition *by* which represent passive constructions *V by(pp)* is marked in TICLE. Concordance lines display those patterns in both corpora.

file1424192	problems that they are faced up with, we may create a result from this that stupid people commit
file1424192	accuse the person for his death because she creates death for herself not by another force
file1424216	After touching some of its buttons you can create fantastic things . On the other hand this
file1424215	Children do not play with their toys or create games with their friends. They only sit
file1424221	exception in the society. The first reason that creates this view is the stereotype that comes
file1424235	It's mane is to struggle with life. we created a world that can be corrected with money
file1424247	educated to go on a living. So the situation creates a backward society . When a well-educated
file1424248	future. And this situation prevents from creating new knowledge which is the first step for
file1424257	way they thinkas it is individuals who create opportunities . An important reason why
file1424263	diseases by the help of another person. It has created big arguments in ethic of religion, science
file1424278	temporary situation. In my opinion God creates the soul at the first day of pregnancy.
file1424302	yin. There is a balance between them that creates the piece in between. Without one of them

Figure 32.

Concordance lines for the patter V n of the AKL verb create in TICLE

file1452901	did back then); thus, scientists cannot create the same conditions they assume were the
file1452901	a biased account and poor reasoning to create a weaker view torwards the idea of prayer
file1452901	use weak reaons and biased opinions to create a less factual article . The article, "
file1452901	schools. Obviously, the government will create a generic prayer so that nobody should
file1452901	expression if the government decides to create a prayer to be recited in every public
file1452901	are surrounded by others like themselves, create lasting relationships , and feel a sense
file1452901	business will fail. The relationships created in business include the union between the
file1452901	no public schools. Yet they were able to create a law that has been used to protect the
file1452901	society is experiencing today. This has created an underclass crippled by the disintegration
file1452901	differences. This green space is supposed to create a more comfortable learning environment
file1452901	extreme cases of adoption battles, they created a false dilemma . Not all biological parents
file1452901	proposition also points out how the situation created a double standard for the police officers

Figure 33.

Concordance lines for the patter V n of the AKL verb create in LOCNESS

file1424187	conscience part. We all know that we are created by god and we believe god. None of us can
file1424232	the money itself. And this ambiguity is created by people , not the money. In the business
file1424320	die day by day. Moreover, the radiation created by nuclear power can not be taken under
file1424366	said that "The harmony, light and men are created by a good element ; the caos, darkness
file1424366	element; the caos, darkness and women are created by a bad element ." Besides, Hippocrate
file1424432	for this, it is clear that it is a result created by individuals , families, and societies

Figure 34.

Concordance lines for the patter V n of the AKL verb create in LOCNESS

Following Table 42, Table 43, and Table 44 report the nouns that were collocated with the pattern *V n* in TICLE and LOCNESS along with their shared and distinctive semantic frames across two corpora.

Table 42.

Nouns and their Shared Semantic Frames of V n pattern of create in both Corpora

	TICLE	LOCNESS
Semantic Frames	Nouns	Nouns
Comparing: Different	inequality	dissension, difference
Sports	race,	game
Religion and the supernatural	soul	prayer
Objects generally	model	tool
Mental object: Conceptual object	theory	view
Green issues	environment	environment
General appearance and physical properties	balance	condition

Table 42 demonstrates nouns collocated with collocational syntactic pattern *V n* of the AKL verb *create* and their shared semantic frames. Those frames are as follows: *Comparing: Different, Sports, Religion and the supernatural, Objects generally, Mental object: Conceptual object, Green issues, General appearance and physical properties*. There is only one identical word, *environment*, across two corpora. In spite of their shared semantic frames, those nouns do not resemble a common semantic sense. However, based on those semantic frames of nouns collocated, verb pattern *V n* represents semantic senses are: *make or cause to be or to become* and *bring into existence*.

Table 43.

Nouns and their Distinctive Semantic Frames of V n pattern of create in TICLE

TICLE	
Semantic Frames	Nouns
Selfish	selfishness, self-confidence
Science and technology in general	radiation, science
Chance, luck	opportunity, chance
Vehicles and transport on land	car
Time: Beginning	source
Speech: Communicative	argument
Shape	line
Reciprocal	interaction
Personality traits	personality
People	human_being
No constraint	chaos
Living creatures: animals, birds, etc.	creature
Likely	possibility
Language, speech and grammar	ambiguity
Geographical terms	atmosphere
Emotional Actions, States And Processes	pity
General	confidence
Confident	confidence
Cause&Effect/Connection	result
Calm	peace

Table 44.

Nouns and their Distinctive Semantic Frames of *Vn* pattern of *create* in LOCNESS

LOCNESS	
Semantic Frames	Nouns
Worry	trouble
Time: Old, new and young; age	age
Thought, belief	attitude
The Media: TV, Radio and Cinema	video
Temperature: Hot / on fire	heat
Quantities: many/much	pile
Personal relationship: General	relationship
Open; Finding; Showing	discovery
Not understanding	dilemma
Not allowed	ban
Moving, coming and going	friction
Lawful	justice
Law and order	law
Knowledgeable	information
Interested/excited/energetic	excitement
Exceed; waste	surplus
Evaluation: Good	advantage
Electricity and electrical equipment	microwave
Difficult	difficulty
Comparing: Similar	equality
Belonging to a group	underclass

Table 43 and Table 44 represent nouns collocated with collocational syntactic pattern *V n* of the AKL verb *create* across both corpora and their distinctive semantic frames. Those frames are in TICLE as follows: *Selfish, Science and technology in general, Chance, luck, Vehicles and transport on land, Time: Beginning, Speech: Communicative, Shape, Reciprocal, Personality traits, People, People, No constraint, Living creatures: animals, birds, etc., Likely, Language, speech and grammar, Geographical terms, Emotional Actions, States And Processes General, Confident, Cause&Effect/Connection, Calm*, and in LOCNESS: *Worry, Time: Old, new and young; age, Thought, belief, The Media: TV, Radio and Cinema, Temperature: Hot / on fire, Quantities: many/much, Personal relationship: General, Open; Finding; Showing, Not understanding, Not allowed, Moving, coming and going, Lawful, Law and order, Knowledgeable, Interested/excited/energetic, Exceed; waste, Evaluation: Good, Electricity and electrical equipment, Difficult, Comparing: Similar, Belonging to a group*.

Nouns collocated and their semantic frames across TICLE and LOCNESS represent rich diversity. However semantic senses that syntactic pattern *V n* carries resemble. Based on the semantic frames of nouns collocated, semantic senses of the pattern are as follows: “*make or cause to be or to become, bring into existence and additionally, create or manufacture a man-made product*”.

4.3.1.9. The Verb *APPLY* and its Grammatical Behaviour in Both Corpora

The AKL verb *apply* ranks eleventh in TICLE while it ranks fifty-fourth in LOCNESS based on raw frequency counts which are 86 in TICLE and 29 in LOCNESS. Additionally, distribution percentage across two corpora is as follows: 1.57 % in TICLE and 0.56 % in LOCNESS. Overall results, raw frequency count, rank order and distribution percentage indicate overuse of the AKL verb *apply* by Turkish EFL learners. Further LL analysis is therefore to verify the claim and reveal significance of overuse.

Table 45.

Log likelihood result of the verb apply

Verb	TICLE (O1)	%	LOCNESS (O2)	%	LL
<i>apply</i>	86	0.04	29	0.02	+ 15.24

O1 is observed frequency in TICLE, O2 is observed frequency in LOCNESS, %1 and %2 values show relative frequencies in the texts, + indicates overuse in O1 relative to O2, - indicates underuse in O1 relative to O2.

Table 45 shows the LL result of the use of the AKL verb *apply*. As it can be seen on the table, LL result ($p = + 15.24$, $p < 0.05$) confirms the overuse of the verb by Turkish EFL learners compared to American university students. Furthermore, this result signifies that the overuse of the verb in TICLE is significant. Detailed analysis of collocational syntactic patterns is to state grammatical behaviour of the verb in both corpora.

Table 46.

Overall patterns of the AKL verb apply used in both corpora

TICLE		LOCNESS	
Patterns (n)	%	Patterns n	%
<i>V n (39)</i>	%45.34	<i>V n (7)</i>	%24.13
<i>V to(pp)* (18)</i>	%20.93		

The upper-case V (verb group) word-class whose patterns on focus. v: verb group, n: noun group, adj: adjective group, adv: adverb group, that: clause introduced by that (realised or not), -ing: clause introduced by an '-ing' form, to-inf: clause introduced, by a to-infinitive form, wh: clause introduced by a wh-word (including how), pp: clause introduced by a preposition, v-ed passive structures, pro_object object pronoun Asteriks * marked pattern structures in corpus. n: raw frequency count of individual pattern. %: ratio of frequency count of an individual pattern to overall frequency count of all patterns used.

Table 46 above shows collocational syntactic patterns of the AKL verb *apply* across both corpora. As it can be seen on the table, there are two patterns *V n* and *V to(pp)* primed in TICLE while there is only one *V n* in LOCNESS. Therefore, raw frequency count and distribution percentages of the patterns are as follows: of the patterns *V n*, 39, 45.34 % and *V to(pp)*, 18, 20.93 % in TICLE and of the pattern *V n*, 7, 24.13 % in LOCNESS. Concordance lines below are to represent patterns as used in both corpora.

file1424644	somebody he is guilty, but when the government	apply	this <i>punishment</i> , it's not a guilt. It
file1424644	uncivilized countries, especially in the east	apply	death <i>penalty</i> to punish the guilty. The
file1424670	minimum we have to make some changes or	apply	some <i>regulations</i> . Because internet if
file1424706	students will not have an opportunity to	apply	this theoretical <i>knowledge</i> in their real
file1424706	make output from their input. They don't	apply	these <i>knowledge</i> while they are having university
file1424706	many things from the courses. He wants to	apply	these <i>information</i> on the real environment
file1424726	euthanasia as it is not ethical, legal to	apply	<i>euthanasia</i> on any patient. In religion
file1424739	abortion should be legal but it should be	applied	some <i>procedures</i> . For example; there sholud
file1424748	of European Union. Since European Union	applied	a <i>pressure</i> to annul the capital punishment
file1424762	state does not make any torture, but just	applies	the <i>laws</i> . However; if a murderer feels
file1424773	about our own area and practice means that	applying	these <i>knowledge</i> into real life. Another
file1424801	in their marriage too. Moreouer they can	apply	the same <i>attitude</i> their parents did in

Figure 35.

Concordance lines for the pattern *V n* of the AKL verb *apply* in TICLE

file1429629	article talks about the growing popularity of	applying	New Age <i>methods</i> in public schools and how
file1429629	York. A pharmacist who was HIV <i>positive</i>	applied	for a job at the Westchester Medical Center
file1429629	. The authors who define the term do not	apply	the same <i>definition</i> , several of the authors
file1429629	for energy and weapons. In some cases the	applied	<i>knowledge</i> has had ill effects and it is
file1429629	in any society or culture is the first to	apply	<i>Marx</i> 's egalitarian goal. A mother nurtures
file1429629	solution to the issues. They have done this by	applying	certain sociological <i>theories</i> to the social
file1429629	sexes are conforming into the <i>stereotypes</i>	applied	to them by the other sex. Premarital sex

Figure 36.

Concordance lines for the pattern *V n* of the AKL verb *apply* in LOCNESS

file1424699	they can not find a place to stay, they	apply	to different <i>ways</i> . For example; theft.
file1424708	profession life? When will the individual	apply	to these unnecessary <i>knowledge</i> ? This is
file1424719	people who decide to die can determine to	apply	to <i>euthounesia</i> as the result of a violant
file1424728	when we look at the records. Some couples	apply	to <i>law</i> , because they claim that they are
file1424778	supporting this reality; recently a woman	applies	to the <i>authorities</i> to be a school manager
file1424797	example when a couple decide to divorce, they	apply	to a law <i>court</i> and if the decision is so
file1424810	guarantee her baby's future. Even if she	applies	to the <i>court</i> , the case can continue for
file1424830	that the same moral standards should be	applied	to both <i>sexes</i> . For example; in the workplace
file1424838	with each other and also some students	apply	to different <i>kinds</i> of cheating ways in
file1424838	students have difficulty in memorizing they	apply	to cheating <i>ways</i> like writing the information
file1424889	If a women has a legal problem, she can	apply	to the law <i>court</i> and solve her problem
file1424909	have a university degree or not, when they	apply	to a <i>job</i> ; nobody cares which department

Figure 37.

Concordance lines for the pattern V to(pp) of the AKL verb apply in TICLE

Following Table 47, Table 48, and Table 49 report the nouns which were collocated with the pattern *V n* in TICLE and LOCNESS along with their shared and distinctive semantic frames across two corpora.

Table 47.

Nouns and their Shared Semantic Frames of V n pattern of apply in both Corpora

	TICLE	LOCNESS
Semantic Frames	Nouns	Nouns
Work and employment:	job	job
Generally		
Mental object:	procedure	method
Means, method		
Mental object:	theory	theory
Conceptual object		
Knowledgeable	knowledge, information	knowledge

Table 47 above represents selected nouns collocated with the pattern *V n* across both corpora and their semantic frames. As it is shown on the table, there are four shared semantic frames: *Work and employment: Generally*, *Mental object: Means, method*, *Mental object: Conceptual object*, *Knowledgeable* and five identical nouns *job, theory* and *knowledge*. Therefore, pattern *V n* carries the sense “*put into service; make work or employ for a particular purpose or for its inherent or natural purpose*”.

Table 48.

Nouns and their Distinctive Semantic Frames of V n pattern of apply in TICLE

TICLE	
Semantic Frames	Nouns
Law and order	regulation, punishment, death_penalty, law
Education in general	curriculum, lesson, test, education
Wanted	strategy, aim
Unethical	cheating
Time: Beginning	form
Thought, belief	attitude
The Media	media
Measurement: Weight	pressure
In power	control
Dead	euthanasia
Able/intelligent	ability

Table 49.

Nouns and their Distinctive Semantic Frames of V n pattern of apply in LOCNESS

LOCNESS	
Semantic Frames	Nouns
Wanted	goal
Speech acts	definition
Comparing: Usual	stereotype

Table 48 and Table 49 display the nouns collocated with the pattern *V n* and their distinctive semantic frames in both corpora. Semantic frames of nouns collocated in TICLE are: Law and order, Education in general, *Wanted*, *Unethical*, *Time: Beginning*, *Thought*, *belief*, *The Media*, *Measurement: Weight*, *In power*, *Dead*, *Able/intelligent*. Therefore, it can be claimed that, *V n* pattern in TICLE overall represents senses; *put into service*; *make work or employ for a particular purpose or for its inherent or natural purpose* and *avail oneself to "apply a principle"; "practice a religion*.

Additionally, semantic frames of nouns collocated in LOCNESS are: *Wanted*, *Speech acts*, *Comparing: Usual*. Thus, based on those frames, it can be said that the pattern carries the sense: *ensure observance of laws and rules*).

4.3.1.10. The Verb *SOLVE* and its Grammatical Behaviour in Both Corpora

Based on raw frequency counts which are n 85 in TICLE and n 31 in LOCNESS, the AKL verb *solve* ranks 12th in TICLE while it ranks forty-first in LOCNESS. Additionally, distribution percentage across two corpora is as follows: 1.55 % in TICLE and 0.60 % in LOCNESS. Overall results, raw frequency count, rank order and distribution percentage indicate overuse of the AKL verb *solve* by Turkish EFL learners. In addition, LL analysis was applied therefore to verify the claim and reveal significance of overuse.

Table 50.

Log likelihood result of the verb solve

Verb	TICLE (O1)	%	LOCNESS (O2)	%	LL
<i>solve</i>	85	0.04	31	0.02	+ 12.74

O1 is observed frequency in TICLE, O2 is observed frequency in LOCNESS, %1 and %2 values show relative frequencies in the texts, + indicates overuse in O1 relative to O2, - indicates underuse in O1 relative to O2.

Table 50 above shows the LL result of the verb *solve*. As shown on the table, LL result ($p = + 12.74$, $p < 0.05$) confirms the overuse of the verb in TICLE compared to LOCNESS. Additionally, the result indicates significance of overuse profile of the verb in TICLE. Detailed analysis of collocational syntactic patterns is to explore grammatical behaviour of the verb in both corpora.

Table 51.

Overall patterns of the AKL verb solve used in both corpora

TICLE		LOCNESS	
Patterns (n)	%	Patterns n	%
<i>V n (58)</i>	%68.23	<i>V n (19)</i>	%61.29

The upper-case V (verb group) word-class whose patterns on focus. v: verb group, n: noun group, adj: adjective group, adv: adverb group, that: clause introduced by that (realised or not), -ing: clause introduced by an '-ing' form, to-inf: clause introduced, by a to-infinitive form, wh: clause introduced by a wh-word (including how), pp: clause introduced by a preposition, v-ed passive structures, pro_object object pronoun Asteriks * marked pattern structures in corpus. n: raw frequency count of individual pattern. %: ratio of frequency count of an individual pattern to overall frequency count of all patterns used.

Table 51 displays the patterns of the AKL verb *solve* across both corpora. As it can be seen, there is only one pattern found in two corpora, that is verb followed by noun, *V solve*. Raw frequency and distributional percentage of the pattern in both

corpora is as follows: n 58, 68.23 % in TICLE and n 19, 61.29 % in LOCNESS. Identical pattern is primed both by Turkish EFL learners and American university students. Concordance lines below represent patterns as used in both corpora.

file1424750	have big economical problems are trying to	solve	their <i>problems</i>	in the same way. In such
file1424785	country and I think goverement have to	solve	that <i>problem</i>	before the other problems.
file1424785	have to look the other countries which	solved	this <i>kind</i>	of problems before and also they
file1424785	the these countries solution goverment	solve	their countries <i>problems</i>	. First of all
file1424843	than that. There is only one solution to	solve	this <i>problem</i>	. Only if this action is banned
file1424889	problem, she can apply to the law court and	solve	her <i>problem</i>	easily. That is, they're equal
file1424884	this point, the technical development has	solved	that <i>problem</i>	. The feeling of necessity
file1424892	same things when they come from work. To	solve	this <i>problem</i>	, the couples pay for cleaners
file1424896	become inexperienced people, they can not	solve	any <i>problems</i>	even it's hard or not. For
file1424900	practice way of knowledges. If they don't	solve	this <i>problem</i>	, their theoreticial knowledges
file1424905	the bank treat them in a good way. They	solve	their <i>problem</i>	immediately. Because they
file1424905	don't appreciate him or her. They don't	solve	their <i>problem</i>	immediately because they

Figure 38.

Concordance lines for the pattern V n of the AKL verb solve in TICLE

file1429629	organizations could appear to be the only way to	solve	the <i>problem</i>	. In reality, it is not. Although
file1429629	going to be the one to step forward to	solve	its own <i>faults</i>	. The black students must
file1429629	separating the two from each other will not	solve	<i>anything</i>	. Only in integrating the black
file1429629	difference, it is also ignored. Instead of	solving	the <i>problems</i>	of racism on campus, the separation
file1429629	the legality of <i>abortion</i> was supposedly	solved	in the decision of Roe v. Wade, where the	
file1429629	acceptance as a very contagious method of	solving	<i>problems</i>	. Debra Saunders wrote, <*>.
file1429629	about how violence isn't the best way to	solve	a <i>conflict</i>	, yet throughout their halfhour
file1429629	society. The police could worry more about	solving	more murder <i>cases</i>	than a lot of these drug
file1429629	officials. decide to work together and	solve	the <i>problem</i>	that started this whole ordeal
file1429629	heads for power. A simple compromise would	solve	the <i>problem</i>	that the United States has
file1429629	acquaintance could have done the same to	solve	the <i>confusion</i>	between the two of them.
file1429629	sued. Our lawmakers have done little to	solve	this <i>problem</i>	. ne Hundreds of ffivolous

Figure 39.

Concordance lines for the pattern V n of the AKL verb solve in LOCNESS

Following Table 52, Table 53, and Table 54 report the nouns which were collocated with the pattern *V n* in TICLE and LOCNESS along with their shared and distinctive semantic frames in both corpora.

Table 52.

Nouns and their Shared Semantic Frames of V n pattern of solve in both Corpora

	TICLE	LOCNESS
Semantic Frames	Nouns	Nouns
Difficult	problem	problem
Pronouns	everything	anything

Table 52 shows two semantic frames only of nouns collocated with the AKL verb *solve*. Frames are as follows: *Difficult* and *Pronouns*. Additionally, there is one identical noun that is *problem*. Finally, it is to be claimed that the pattern *V n* carries the sense: “*find the solution to (a problem or question) or understand the meaning of*”.

There is exceptional usage of the noun *problem* with the verb *solve* in both corpora. 53 out of 58 *V n* pattern consist of the noun *problem* in TICLE while it is 13 out of 19 *V n* pattern. Both Turkish EFL learners and American students incline towards priming the noun *problem* with the verb *solve*.

Table 53.

Nouns and their Distinctive Semantic Frames of V n pattern of solve in TICLE

TICLE	
Semantic Frames	Nouns
Speech acts	question
Mental object: Conceptual object	matter

Table 54.

Nouns and their Distinctive Semantic Frames of V n pattern of solve in LOCNESS

LOCNESS	
Semantic Frames	Nouns
Not understanding	confusion
Mathematics	equation
Generally kinds, groups, examples	case
Evaluation: Inaccurate	fault
Comparing: Different	conflict

Table 53 and Table 54 show nouns collocated and their distinctive semantic frames in both corpora. There are only two distinctive semantic frames in TICLE which are *Speech acts* and *Mental object: Conceptual object*. Therefore, the pattern carries the semantic sense: “*find the solution to (a problem or question) or understand the meaning of*”.

Additionally, frames of nouns collocated in LOCNESS are as follows: *Not understanding, Mathematics, Generally kinds, groups, examples, Evaluation: Inaccurate, Comparing: Different*. When compared to TICLE, frames in LOCNESS represent variation. Hence, in addition to sense identical the one found in TICLE, they state other semantic senses such as: *solve an equation; solve for x and clear a debt; solve an old debt*.

4.2. Discussion

Overall results of frequency analysis, exploration of syntactic patterns, and semantic frames of nouns collocated represent typical use of the AKL verbs by Turkish EFL learners and native speakers of English. Frequency analysis was applied to measure the overuse / underuse of the AKL verbs while it was aimed to explain

preferred phraseological and lexico-grammatical patterns of these verbs as used by both Turkish EFL learners and native speakers of English. Consequently, investigation of the interlanguage features of Turkish EFL learners was the primary purpose of the current study.

As stated by Paquot (2010), the tendency to use recurrent lexical items is result of learner's limited range of lexical knowledge. Also Saville-Troike (2006) claims that the non-native speakers are more likely to select and implement lexical items from a more limited lexical repertoire when they are compared to the native speakers with the same educational level. Within the frame of those indications given above, the frequency analysis shows that Turkish EFL learners outline an overall underuse profile of AKL verbs compared to American university students in their argumentative essays. Log-likelihood calculation also shows that the overall underuse of AKL verbs by Turkish students is significant. Additionally, type / token ratio shows that the AKL verb density is low in TICLE compared to LOCNESS. However the analysis of top-ten verb shows that six out of ten AKL verbs are identical across both corpora. Turkish EFL learners, to the most extent, rely on the same high frequency AKL verbs. Therefore, this study claims that Turkish EFL learners, first of all, represent lack of usage of AKL verbs in their argumentative essays compared to native speakers of English. Second, they incline towards recurrent usage of certain lexical items.

Analysis of ten high frequency individual AKL verbs shows that some of the verbs were significantly overused, namely; *cause, suffer, study, prevent, apply* while some of them overused but results are not significant in terms of statistical analysis, namely; *provide, create* and one of them was significantly underused namely; *show* and last one was underused but results are not statistically significant, namely; *consider*. Therefore, overuse of individual verbs shows consistency with previous claims, Turkish EFL learners of English's relying on recurrent lexical items. One exceptional analysis was applied due to its low frequency in LOCNESS. The verb *study* was investigated for the second time. For this case, it was found that synonymous verbs were used in similar patterns constructions. Lexical items with similar semantic senses display similar syntactic features as used by Turkish EFL learners.

Additionally, exploration of collocational syntactic patterns shows those verbs, *cause, study*, display more variation in terms of pattern structures in TICLE while

provide and *solve* represent the priming of identical pattern with same rank order across two corpora. Also, other verbs namely, *show*, *cause*, *create* display similar patterns with statistically different results, additionally; the AKL verb *prevent* has one more extra pattern in TICLE. Finally, verbs namely, *suffer* and *apply* illustrate marked interlanguage attributes of Turkish EFL learners of English. Usage of the verb *suffer* with preposition *from* and use of the verb *apply* with preposition *to* in TICLE is highly frequent while they are not found in LOCNESS.

Finally, semantic analysis of pattern “*V n*” shows nouns collocated with the pattern and their semantic frames as well as semantic senses that the patterns carry. Data results indicate that semantic senses of AKL verbs, namely, *create*, *prevent*, *suffer*, *cause* and *show* are identical across both corpora. However, other AKL verbs, namely, *consider*, *provide*, *study*, *solve* display variations and additions in senses in LOCNESS while the AKL verb *apply* represents more variation of semantic senses in TICLE. Additionally, one exceptional analysis was applied to verb *study* due to verb’s very low frequency in LOCNESS. This investigation revealed that regardless of pattern structure, semantic senses of the verb in TICLE do not illustrate variation.

In addition to lexical-sense relations, there are some specific errors in the interlanguage of Turkish EFL learners in use of syntactic patterns. Patterns such as *cause to*, *consider as*, *suffer from* and *apply to* are all found in TICLE and are all ungrammatical according to Collins Cobuild online dictionary. According to Willis (1996), there errors that learners produce with patterns are signs of language development. Though their incorrectness, those structures can be recognized by component speakers of English, therefore, they are “acceptable errors” (Willis, 1996, p.39). Whole process states learner’s attempt to make appropriate generalization about the verbs. However, he or she is not able to relate convenient pattern with the verb. As each lexical item carries its own semantic and syntactic information with it, patterns to be associated with the item is predictable (Hunston and Francis, 2000, Willis, 1996). However, associating process may be under the influence of transfer from first language. Conceptualization of collocational patterns and associations are relied on meanings of the verbs and patterns to be associated. Learner will match the most relevant pattern according to cognitive representation of the lexical item and the targeted usage of it. Therefore, pattern errors of EFL learners are due to linkage

between first language and second language mental lexicon. According to Willis (1996) lack of learners' being exposed to pattern structures of the lexical item in second language cause learners make incorrect generalizations based on the concepts from first language.

Additionally, according to Hoey (2008) when we encounter a lexical item in any discourse, by priming that item in the given discourse, naturally we acquire patterns and specific attributes to this lexis. Thus, in consonance, that lexical item with its patterns, structures and textual positions is now primed as being explicit to that discourse. Hoey (2008) states that priming is idiosyncratic and each person based on his or her experience, primes lexical items as register-specific. Considering these implications, therefore, exposure to patterns of lexical item in accordance with gaining awareness via teacher's explanations and consciousness rising towards patterns are curial for learners to acquire authentic usage of target language utterances. Also Hunston and Francis (2000) state the similar claims indicating importance of patterns structures as "input" to be implemented into the curriculum, syllabus structure and materials to be used.

To sum, as stated by Singleton (2000, p. 79) "the same lexical expressions repeatedly recur in each other's company is partly explicable... as the same kinds of scenarios involving the same kind of entities recur in the life of a particular culture and in the lives of those who participate...". Therefore, large numbers of the sequences of words that we put into use or receive in everyday utterances either written or spoken are distinctly pre-fabricated chunks or bundles. These combinations that speakers have readily available to them in their lexicon function together and may vary from fixed idiomatic expressions to semi fixed ones. Finally, as the lexicon includes syntagmatic and lexical-sense relations among lexical items, it is clear as well as native speakers, learners of any language as a second language need to know about collocational patterns to be able function in the language in focus smoothly (Singleton, 2000).

CHAPTER V

CONCLUSION

5.0. Introduction

In this study, AKL (Academic Keyword List) verbs in Turkish EFL learners' argumentative essays have been investigated by means of quantitative and descriptive analyses. Based on frequency analysis, the top ten AKL verbs in TICLE were analysed in details and their patterns structures, nouns collocated with the pattern *V n*, and semantic senses of the pattern were given. The results were compared with native speakers' usage of those verbs selected, their patterns and semantic senses. In this section, the evaluation of the study was presented. Then, the implications for ELT research and applications were discussed as well as suggestions for further research.

5.1. Conclusion

Investigation of AKL verbs in argumentative essays of Turkish EFL learners of English and native speakers of English enabled to describe general attitude towards usage of those lexical items. Additionally, in depth analysis explains the behaviour of individual top ten verbs as used by Turkish EFL learners and native speakers. Based on the findings, we can conclude following interpretations:

- Turkish EFL learners used 202 types of AKL verbs out of total 233 AKL verbs while native speakers of English language used 218 types AKL verbs.
- Overall total frequency of AKL verbs used in TICLE is 5456 while it is 5141 in LOCNESS.
- Turkish EFL learners used approximately 2.44 AKL verbs per 100 words while native speakers of English used 3.05 AKL verbs per 100 words in their collection of argumentative essays.
- Both Turkish EFL learners and American university students, namely native speakers of English used six identical AKL verbs, *use*, *become*, *cause*, *show*, *consider* and *provide* out of top ten AKL

verbs across both corpora. Additionally, AKL verbs, *suffer*, *study*, *prevent* and *create* are among top ten AKL verbs in TICLE while *allow*, *state*, *support*, and *argue* are among top ten AKL verbs in LOCNESS.

- The syntactic pattern *V n* was found to be the most frequent pattern of those verbs selected. Other patterns of the verbs found in both corpora are as follows: *V to-inf*, *V pro_object*, *V-ed by*, *V to(pp)*, *V adj compl*, *V wh compl*, and *V for(pp)*. Additionally some patterns, namely *V as(pp)*, *V from(pp)* and *V by(pp)* were found only in TICLE. However no distinctive pattern of those verbs selected is found in LOCNESS.
- Analysis of individual ten AKL verbs in TICLE and comparing results to LOCNESS revealed primings of nouns collocated with verbs selected. There is no collectiveness represented by either nouns or semantic frames of those nouns for each verb selected. However, variation and number of nouns collected are directly related to frequency of the verb. Therefore, underused verbs either by Turkish EFL learners or native speakers represent less variation in nouns preferences while it is the opposite for overused verbs. However, variation of semantic senses that the pattern in analysis carries is displayed across both corpora. Five out of top ten AKL verbs and their patterns in TICLE have identical semantic senses as they have in LOCNESS. There is only one verb and its pattern which shows distinctive semantic sense in TICLE while remaining four AKL verbs represent distinctive semantic senses in LOCNESS.

This study investigated overall AKL verbs usage and explained grammatical behaviour of ten selected AKL verbs in two corpora, TICLE and LOCNESS. As suggested by Gledhill (2000) and Paquot (2010) preferred phraseological and lexicogrammatical patterns were identified both in learner corpus and in native speaker corpus. Each verb was described acknowledging that those texts are argumentative

essays on similar topics. The focus of the analysis was on the lexico-grammatical patternings within which discourse those expressions and collocations were produced and encode semanticity of the individual verbs.

This study supports the idea that “Writings of Turkish EFL learners of English are distinguishable by investigation of lexico-grammatical patterns, co-occurrences and primings of those structures that differ from as used by native speakers”. In this particular study, it was found out that Turkish EFL learners share a number of linguistics features with native speakers of English, with their highly usage of the pattern *V n* with each verb analysed and semantic senses attributed to that pattern. However, a number of interlanguage features that characterise grammatical behaviour of each verb in writings of Turkish EFL writings are, limited lexical repertoire which was defined by underuse of AKL verbs and tendency to rely on recurrent lexical items, also lexico-grammatical and phraseological specificities which were exemplified as inclining towards using a set of limited patterns and ungrammatical use of pattern structures by Turkish EFL learners. Usage of limited set of patterns structure was also found in novice native-speaker writing. However, semantic senses those patterns carry, based on the semantic frames of nouns collocated, illustrate more variation in native speaker writings. Also, there is no marked ungrammatical pattern usage in native speaker writings. Therefore, it can be claimed that lexico-grammatical errors, limited semantic senses and non-native like sequences in those academic texts are learner specific.

It is not possible to attribute those variations in learner specific wording to a single factor alone. As stated by Callies and Zaytseva, “there are a number of semantic, structural and discourse related determinants which interfere and influence writers’ lexico-grammatical variation of constructional choices” (2011, p. 53). In second language writings, “developmental, teaching-induced and first language transfer-related effects can reinforce each other” (Granger, 2004, p.135 as cited in Paquot, 2010, p.216). Therefore, along with those determinants mentioned above, several interlanguage specific ones such as mother tongue (L1), proficiency level, task-specific factors, setting, and genre contribute to this interrelated influence of factors.

5.2. Implications for English Language Teaching

In this section, we explained possible implications of pattern grammar approach applied to English language teaching and learning classes. As an approach to lexis-grammar interface, pattern grammar may contribute to teaching of both grammar and vocabulary as suggested by Hunston, Francis and Manning (1997). Also, it may be integrated to any type of syllabus, particularly lexical syllabus.

Hunston and Francis (2000, p. 262) state that “emphasis on the behaviour of individual words, which treats grammar as indistinguishable from lexis, corroborates the prioritising of lexis over structure as the organising principle in a language course”. Patterns as input for language learners may be used to support concept of grammatical consciousness rising. Teachers can utilise reference grammar books providing detailed list of patterns of lexical items to design materials facilitating that kind of awareness. In this sense, pattern grammar approach can contribute to development and improvement of four crucial language aspects that are comprehension, accuracy, fluency, and creativity in target language use.

5.3. Suggestion for Further Studies

The current study investigated two comparable corpora, TICLE and LOCNESS, in order to discover patterns of lexical verbs cited in Academic Keyword List (Paquot, 2010). The scope of the study is limited to detailed analysis of ten highly frequent verbs. Also, scale is limited to corpora utilised. Larger corpora may provide a more comprehensive discovery of pattern variation. However, TICLE is the only learner corpus of Turkish EFL learners. Additionally, for pedagogical implications, results were compared to LOCNESS. Therefore, developmental and interlanguage specific features of Turkish EFL learners are basic focuses of the study. Analysis of other EFL learner corpora in similar sense may be handled to explore shared feature among learners of English as a second language with various first languages. Additionally, this type of analysis may suggest that either certain features are available to learners with certain first languages or they are shared developmental and interlanguage specific features.

Finally, this study acknowledges that the verbs analysed are listed as potential academic lexical items and texts investigated are argumentative essays. Therefore,

patterns, senses and priming effects may be due to limitation of genre and discourse. Also, investigating of patterns in classroom settings as integrated in the syllabus may suggest new sights for application of lexical-grammar approach to English language teaching and learning classes.

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APPENDICES

APPENDIX 1

ACADEMIC KEYWORD LIST

Nouns

ability, absence, account, achievement, act, action, activity, addition, adoption, adult, advance, advantage, advice, age, aim, alternative, amount, analogy, analysis, application, approach, argument, aspect, assertion, assessment, assistance, association, assumption, attempt, attention, attitude, author, awareness, balance, basis, behaviour, being, belief, benefit, bias, birth, capacity, case, category, cause, centre, challenge, change, character, characteristic, choice, circumstance, class, classification, code, colleague, combination, commitment, committee, communication, community, comparison, complexity, compromise, concentration, concept, conception, concern, conclusion, condition, conduct, conflict, consensus, consequence, consideration, constraint, construction, content, contradiction, contrast, contribution, control, convention, correlation, country, creation, crisis, criterion, criticism, culture, damage, data, debate, decision, decline, defence, definition, degree, demand, description, destruction, determination, development, difference, difficulty, dilemma, dimension, disadvantage, discovery, discrimination, discussion, distinction, diversity, division, doctrine, effect, effectiveness, element, emphasis, environment, error, essence, establishment, evaluation, event, evidence, evolution, examination, example, exception, exclusion, existence, expansion, experience, experiment, explanation, exposure, extent, extreme, fact, factor, failure, feature, female, figure, finding, force, form, formation, function, future, gain, group, growth, guidance, guideline, hypothesis, idea, identity, impact, implication, importance, improvement, increase, indication, individual, influence, information, insight, instance, institution, integration, interaction, interest, interpretation, intervention, introduction, investigation, isolation, issue, kind, knowledge, lack, learning, level, likelihood, limit, limitation, link, list, literature, logic, loss, maintenance, majority, male, manipulation, mankind, material, means, measure, medium, member, method, minority, mode, model, motivation, movement, need, network, norm, notion, number, observation, observer, occurrence, operation, opportunity, option, organisation, outcome, output, parallel, parent, part, participant,

past, pattern, percentage, perception, period, person, personality, perspective, phenomenon, point, policy, population, position, possibility, potential, practice, presence, pressure, problem, procedure, process, production, programme, progress, property, proportion, proposition, protection, provision, publication, purpose, quality, question, range, rate, reader, reality, reason, reasoning, recognition, reduction, reference, relation, relationship, relevance, report, representative, reproduction, requirement, research, resistance, resolution, resource, respect, restriction, result, review, rise, risk, role, rule, sample, scale, scheme, scope, search, section, selection, sense, separation, series, service, set, sex, shift, significance, similarity, situation, skill, society, solution, source, space, spread, standard, statistics, stimulus, strategy, stress, structure, subject, success, summary, support, survey, system, target, task, team, technique, tendency, tension, term, theme, theory, tolerance, topic, tradition, transition, trend, type, uncertainty, understanding, unit, use, validity, value, variation, variety, version, view, viewpoint, volume, whole, work, world

Verbs

accept, account (for), achieve, acquire, act, adapt, adopt, advance, advocate, affect, aid, aim, allocate, allow, alter, analyse, appear, apply, argue, arise, assert, assess, assign, associate, assist, assume, attain, attempt, attend, attribute, avoid, base, be, become, benefit, can, cause, characterise, choose, cite, claim, clarify, classify, coincide, combine, compare, compete, comprise, concentrate, concern, conclude, conduct, confine, conform, connect, consider, consist, constitute, construct, contain, contrast, contribute, control, convert, correspond, create, damage, deal, decline, define, demonstrate, depend, derive, describe, design, destroy, determine, develop, differ, differentiate, diminish, direct, discuss, display, distinguish, divide, dominate, effect, eliminate, emerge, emphasize, employ, enable, encounter, encourage, enhance, ensure, establish, evaluate, evolve, examine, exceed, exclude, exemplify, exist, expand, experience, explain, expose, express, extend, facilitate, fail, favour, finance, focus, follow, form, formulate, function, gain, generate, govern, highlight, identify, illustrate, imply, impose, improve, include, incorporate, increase, indicate, induce, influence, initiate, integrate, interpret, introduce, investigate, involve, isolate, label, lack, lead, limit, link, locate, maintain, may, measure, neglect, note, obtain, occur, operate, outline, overcome, participate, perceive, perform, permit, pose, possess, precede, predict, present, preserve, prevent,

produce, promote, propose, prove, provide, publish, pursue, quote, receive, record, reduce, refer, reflect, regard, regulate, reinforce, reject, relate, rely, remain, remove, render, replace, report, represent, reproduce, require, resolve, respond, restrict, result, retain, reveal, seek, select, separate, should, show, solve, specify, state, stimulate, strengthen, stress, study, submit, suffer, suggest, summarise, supply, support, sustain, tackle, tend, term, transform, treat, undermine, undertake, use, vary, view, write, yield

Adjectives

absolute, abstract, acceptable, accessible, active, actual, acute, additional, adequate, alternative, apparent, applicable, appropriate, arbitrary, available, average, basic, central, certain, clear, common, competitive, complete, complex, comprehensive, considerable, consistent, conventional, correct, critical, crucial, dependent, detailed, different, difficult, distinct, dominant, early, effective, equal, equivalent, essential, evident, excessive, experimental, explicit, extensive, extreme, far, favourable, final, fixed, following, formal, frequent, fundamental, future, general, great, high, human, ideal, identical, immediate, important, inadequate, incomplete, independent, indirect, individual, inferior, influential, inherent, initial, interesting, internal, large, late, leading, likely, limited, local, logical, main, major, male, maximum, mental, minimal, minor, misleading, modern, mutual, natural, necessary, negative, new, normal, obvious, original, other, overall, parallel, partial, particular, passive, past, permanent, physical, positive, possible, potential, practical, present, previous, primary, prime, principal, productive, profound, progressive, prominent, psychological, radical, random, rapid, rational, real, realistic, recent, related, relative, relevant, representative, responsible, restricted, scientific, secondary, selective, separate, severe, sexual, significant, similar, simple, single, so-called, social, special, specific, stable, standard, strict, subsequent, substantial, successful, successive, sufficient, suitable, surprising, symbolic, systematic, theoretical, total, traditional, true, typical, unique, unlike, unlikely, unsuccessful, useful, valid, valuable, varied, various, visual, vital, wide, widespread

Adverbs

above, accordingly, accurately, adequately, also, approximately, at best, basically, clearly, closely, commonly, consequently, considerably, conversely, correctly, directly, effectively, e.g., either, equally, especially, essentially, explicitly, extremely, fairly, far, for example, for instance, frequently, fully, further, generally, greatly, hence, highly,

however, increasingly, indeed, independently, indirectly, inevitably, initially, in general, in particular, largely, less, mainly, more, moreover, most, namely, necessarily, normally, notably, often, only, originally, over, partially, particularly, potentially, previously, primarily, purely, readily, recently, relatively, secondly, significantly, similarly, simply, socially, solely somewhat, specifically, strongly, subsequently, successfully, thereby, therefore, thus, traditionally, typically, ultimately, virtually, wholly, widely

Others

according to, although, an, as, as opposed to, as to, as well as, because, because of, between, both, by, contrary to, depending on, despite, due to, during, each, even though, fewer, first, former, from, for, given that, in, in addition to, in common with, in favour of, in relation to, in response to, in terms of, in that, in the light of, including, its, itself, latter, less, little, many, most, of, or, other than, per, prior to, provided, rather than, same, second, several, since, some, subject to, such, such as, than, that, the, their, themselves, these, third, this, those, to, unlike, upon, versus, whereas, whether, whether or not, which, within

APPENDIX 2
UCREL SEMANTIC TAGSET

A1 General And Abstract Terms

A1.1.1 General actions / making

A1.1.1-Inaction

A1.1.2 Damaging and destroying

A1.1.2-Fixing and mending

A1.2 Suitability

A1.2+ Suitable

A1.2- Unsuitable

A1.3 Caution

A1.3+ Cautious

A1.3- No caution

A1.4 Chance, luck

A1.4+ Lucky

A1.4- Unlucky

A1.5 Use

A1.5.1 Using

A1.5.1+Used

A1.5.1-Unused

A1.5.2 Usefulness

A1.5.2+Useful

A1.5.2-Useless

A1.6 Concrete/Abstract

A1.7+ Constraint

A1.7- No constraint

A1.8+ Inclusion

A1.8- Exclusion

A1.9 Avoiding

A1.9- Unavoidable

- A2 Affect
 - A2.1 Modify, change
 - A2.1+ Change
 - A2.1- No change
 - A2.2 Cause&Effect/Connection
 - A2.2+ Cause/Effect/Connected
 - A2.2- Unconnected
- A3 Being
 - A3+ Existing
 - A3- Non-existing
- A4 Classification
 - A4.1 Generally kinds, groups, examples
 - A4.1- Unclassified
 - A4.2 Particular/general; detail
 - A4.2+ Detailed
 - A4.2- General
- A5 Evaluation
 - A5.1 Evaluation: Good/bad
 - A5.1+ Evaluation: Good
 - A5.1- Evaluation: Bad
 - A5.2 Evaluation: True/false
 - A5.2+ Evaluation: True
 - A5.2- Evaluation: False
 - A5.3 Evaluation: Accuracy
 - A5.3+ Evaluation: Accurate
 - A5.3- Evaluation: Inaccurate
 - A5.4 Evaluation: Authenticity
 - A5.4+ Evaluation: Authentic
 - A5.4- Evaluation: Unauthentic
- A6 Comparing
 - A6.1 Comparing: Similar/different
 - A6.1+ Comparing: Similar

- A6.1- Comparing: Different
- A6.2 Comparing: Usual/unusual
- A6.2+ Comparing: Usual
- A6.2- Comparing: Unusual
- A6.3 Comparing: Variety
- A6.3+ Comparing: Varied
- A6.3- Comparing: Unvaried
- A7 Probability
- A7+ Likely
- A7- Unlikely
- A8 Seem
- A9 Getting and giving; possession
- A9+ Getting and possession
- A9- Giving
- A10 Open/closed; Hiding/Hidden; Finding; Showing
- A10+ Open; Finding; Showing
- A10- Closed; Hiding/Hidden
- A11 Importance
- A11.1 Importance
- A11.1+ Important
- A11.1- Unimportant
- A11.2 Noticeability
- A11.2+ Noticeable
- A11.2- Unnoticeable
- A12 Easy/difficult
- A12+ Easy
- A12- Difficult
- A13 Degree
- A13.1 Degree: Non-specific
- A13.2 Degree: Maximizers
- A13.3 Degree: Boosters
- A13.4 Degree: Approximators

- A13.5 Degree: Compromisers
- A13.6 Degree: Diminishers
- A13.7 Degree: Minimizers
- A14 Exclusivizers/particularizers
- A15 Safety/Danger
- A15+ Safe
- A15- Danger
- B1 Anatomy and physiology
- B2 Health and disease
- B2+ Healthy
- B2- Disease
- B3 Medicines and medical treatment
- B3- Without medical treatment
- B4 Cleaning and personal care
- B4+ Clean
- B4- Dirty
- B5 Clothes and personal belongings
- B5- Without clothes
- C1 Arts and crafts
- E1 Emotional Actions, States And Processes General
- E1+ Emotional
- E1- Unemotional
- E2 Liking
- E2+ Like
- E2- Dislike
- E3 Calm/Violent/Angry
- E3+ Calm
- E3- Violent/Angry
- E4 Happiness and Contentment
- E4.1 Happy/sad
- E4.1+ Happy
- E4.1- Sad

- E4.2 Contentment
- E4.2+ Content
- E4.2- Discontent
- E5 Bravery and Fear
- E5+ Bravery
- E5- Fear/shock
- E6 Worry and confidence
- E6+ Confident
- E6- Worry
- F1 Food
- F1+ Abundance of food
- F1- Lack of food
- F2 Drinks and alcohol
- F2+ Excessive drinking
- F2- Not drinking
- F3 Smoking and non-medical drugs
- F3+ Smoking and drugs abuse
- F3- Non-smoking / no use of drugs
- F4 Farming & Horticulture
- F4- Uncultivated
- G1 Government and Politics
- G1.1 Government
- G1.1- Non-governmental
- G1.2 Politics
- G1.2- Non-political
- G2 Crime, law and order
- G2.1 Law and order
- G2.1+ Lawful
- G2.1- Crime
- G2.2 General ethics
- G2.2+ Ethical
- G2.2- Unethical

- G3 Warfare, defence and the army; weapons
- G3- Anti-war
- H1 Architecture, houses and buildings
- H2 Parts of buildings
- H3 Areas around or near houses
- H4 Residence
- H4- Non-resident
- H5 Furniture and household fittings
- H5- Unfurnished
- I1 Money generally
- I1.1 Money and pay
- I1.1+ Money: Affluence
- I1.1- Money: Lack
- I1.2 Money: Debts
- I1.2+ Spending and money loss
- I1.2- Debt-free
- I1.3 Money: Cost and price
- I1.3+ Expensive
- I1.3- Cheap
- I2 Business
- I2.1 Business: Generally
- I2.1- Non-commercial
- I2.2 Business: Selling
- I3 Work and employment
- I3.1 Work and employment: Generally
- I3.1- Unemployed
- I3.2 Work and employment: Professionalism
- I3.2+ Professional
- I3.2- Unprofessional
- I4 Industry
- I4- No industry
- K1 Entertainment generally

- K2 Music and related activities
- K3 Recorded sound
- K4 Drama, the theatre and show business
- K5 Sports and games generally
 - K5.1 Sports
 - K5.2 Games
- K6 Children's games and toys
- L1 Life and living things
 - L1+ Alive
 - L1- Dead
 - L2 Living creatures: animals, birds, etc.
 - L2- No living creatures
 - L3 Plants
 - L3- No plants
- M1 Moving, coming and going
- M2 Putting, pulling, pushing, transporting
- M3 Vehicles and transport on land
- M4 Sailing, swimming, etc.
 - M4- Non-swimming
- M5 Flying and aircraft
- M6 Location and direction
- M7 Places
- M8 Stationary
- N1 Numbers
- N2 Mathematics
- N3 Measurement
 - N3.1 Measurement: General
 - N3.2 Measurement: Size
 - N3.2+ Size: Big
 - N3.2- Size: Small
 - N3.3 Measurement: Distance
 - N3.3+ Distance: Far

- N3.3- Distance: Near
- N3.4 Measurement: Volume
 - N3.4+ Volume: Inflated
 - N3.4- Volume: Compressed
- N3.5 Measurement: Weight
 - N3.5+ Weight: Heavy
 - N3.5- Weight: Light
- N3.6 Measurement: Area
 - N3.6+ Spacious
- N3.7 Measurement: Length & height
 - N3.7+ Long, tall and wide
 - N3.7- Short and narrow
- N3.8 Measurement: Speed
 - N3.8+ Speed: Fast
 - N3.8- Speed: Slow
- N4 Linear order
 - N4- Nonlinear
- N5 Quantities
 - N5+ Quantities: many/much
 - N5- Quantities: little
 - N5.1 Entirety; maximum
 - N5.1+ Entire; maximum
 - N5.1- Part
 - N5.2 Exceeding
 - N5.2+ Exceed; waste
- N6 Frequency
 - N6+ Frequent
 - N6- Infrequent
- O1 Substances and materials generally
 - O1.1 Substances and materials: Solid
 - O1.2 Substances and materials: Liquid
 - O1.2- Dry

- O1.3 Substances and materials: Gas
- O1.3- Gasless
- O2 Objects generally
- O3 Electricity and electrical equipment
- O4 Physical attributes
- O4.1 General appearance and physical properties
- O4.2 Judgement of appearance
- O4.2+ Judgement of appearance: Beautiful
- O4.2- Judgement of appearance: Ugly
- O4.3 Colour and colour patterns
- O4.4 Shape
- O4.5 Texture
- O4.6 Temperature
- O4.6+ Temperature: Hot / on fire
- O4.6- Temperature: Cold
- P1 Education in general
- P1- Not educated
- Q1 Linguistic Actions, States And Processes; Communication
- Q1.1 Linguistic Actions, States And Processes; Communication
- Q1.2 Paper documents and writing
- Q1.2- Unwritten
- Q1.3 Telecommunications
- Q2 Speech
- Q2.1 Speech: Communicative
- Q2.1+ Speech: Talkative
- Q2.1- Speech: Not communicating
- Q2.2 Speech acts
- Q2.2- Speech acts: Not speaking
- Q3 Language, speech and grammar
- Q3- Non-verbal
- Q4 The Media
- Q4.1 The Media: Books

- Q4.2 The Media: Newspapers etc.
- Q4.3 The Media: TV, Radio and Cinema
- S1 Social Actions, States And Processes
- S1.1 Social Actions, States And Processes
- S1.1.1 Social Actions, States And Processes
- S1.1.2 Reciprocity
- S1.1.2+Reciprocal
- S1.1.2-Unilateral
- S1.1.3 Participation
- S1.1.3+Participating
- S1.1.3-Non-participating
- S1.1.4 Deserve
- S1.1.4+Deserving
- S1.1.4-Undeserving
- S1.2 Personality traits
- S1.2.1 Approachability and Friendliness
- S1.2.1+Informal/Friendly
- S1.2.1-Formal/Unfriendly
- S1.2.2 Avarice
- S1.2.2+Greedy
- S1.2.2-Generous
- S1.2.3 Egoism
- S1.2.3+Selfish
- S1.2.3-Unselfish
- S1.2.4 Politeness
- S1.2.4+Polite
- S1.2.4-Impolite
- S1.2.5 Toughness; strong/weak
- S1.2.5+Tough/strong
- S1.2.5-Weak
- S1.2.6 Common sense
- S1.2.6+ Sensible

S1.2.6-Foolish

S2 People

S2- No people

S2.1 People: Female

S2.1- Not feminine

S2.2 People: Male

S3 Relationship

S3.1 Personal relationship: General

S3.1- No personal relationship

S3.2 Relationship: Intimacy and sex

S3.2+ Relationship: Sexual

S3.2- Relationship: Asexual

S4 Kin

S4- No kin

S5 Groups and affiliation

S5+ Belonging to a group

S5- Not part of a group

S6 Obligation and necessity

S6+ Strong obligation or necessity

S6- No obligation or necessity

S7 Power relationship

S7.1 Power, organizing

S7.1+ In power

S7.1- No power

S7.2 Respect

S7.2+ Respected

S7.2- No respect

S7.3 Competition

S7.3+ Competitive

S7.3- No competition

S7.4 Permission

S7.4+ Allowed

- S7.4- Not allowed
- S8 Helping/hindering
- S8+ Helping
- S8- Hindering
- S9 Religion and the supernatural
- S9- Non-religious
- T1 Time
- T1.1 Time: General
 - T1.1.1 Time: Past
 - T1.1.2 Time: Present; simultaneous
 - T1.1.2-Time: Asynchronous
 - T1.1.3 Time: Future
- T1.2 Time: Momentary
- T1.3 Time: Period
 - T1.3+ Time period: long
 - T1.3- Time period: short
- T2 Time: Beginning and ending
 - T2+ Time: Beginning
 - T2- Time: Ending
- T3 Time: Old, new and young; age
 - T3+ Time: Old; grown-up
 - T3- Time: New and young
- T4 Time: Early/late
 - T4+ Time: Early
 - T4- Time: Late
- W1 The universe
- W2 Light
 - W2- Darkness
- W3 Geographical terms
- W4 Weather
- W5 Green issues
- X1 Psychological Actions, States And Processes

- X2 Mental actions and processes
 - X2.1 Thought, belief
 - X2.1- Without thinking
 - X2.2 Knowledge
 - X2.2+ Knowledgeable
 - X2.2- No knowledge
 - X2.3 Learn
 - X2.3+ Learning
 - X2.4 Investigate, examine, test, search
 - X2.4+ Double-check
 - X2.4- Not examined
 - X2.5 Understand
 - X2.5+ Understanding
 - X2.5- Not understanding
 - X2.6 Expect
 - X2.6+ Expected
 - X2.6- Unexpected
- X3 Sensory
 - X3.1 Sensory: Taste
 - X3.1+ Tasty
 - X3.1- Not tasty
 - X3.2 Sensory: Sound
 - X3.2+ Sound: Loud
 - X3.2- Sound: Quiet
 - X3.3 Sensory: Touch
 - X3.4 Sensory: Sight
 - X3.4+ Seen
 - X3.4- Unseen
 - X3.5 Sensory: Smell
 - X3.5- No smell
- X4 Mental object
 - X4.1 Mental object: Conceptual object

- X4.1- Themeless
- X4.2 Mental object: Means, method
- X5 Attention
- X5.1 Attention
- X5.1+ Attentive
- X5.1- Inattentive
- X5.2 Interest/boredom/excited/energetic
- X5.2+ Interested/excited/energetic
- X5.2- Uninterested/bored/unenergetic
- X6 Deciding
- X6+ Decided
- X6- Undecided
- X7 Wanting; planning; choosing
- X7+ Wanted
- X7- Unwanted
- X8 Trying
- X8+ Trying hard
- X8- Not trying
- X9 Ability
- X9.1 Ability and intelligence
- X9.1+ Able/intelligent
- X9.1- Inability/unintelligence
- X9.2 Success and failure
- X9.2+ Success
- X9.2- Failure
- Y1 Science and technology in general
- Y1- Anti-scientific
- Y2 Information technology and computing
- Y2- Low-tech
- Z0 Unmatched proper noun
- Z1 Personal names
- Z2 Geographical names

Z3	Other proper names
Z4	Discourse Bin
Z5	Grammatical bin
Z6	Negative
Z7	If
Z7-	Unconditional
Z8	Pronouns
Z9	Trash can
Z99	Unmatched

CURRICULUM VITAE

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Work Experience

2013 – 2014 : English Teacher at Diem English Globe, Adana, Turkey

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