

REPUBLIC OF TURKEY
ÇAĞ UNIVERSITY
INSTITUTE OF SOCIAL SCIENCES
DEPARTMENT OF ENGLISH LANGUAGE EDUCATION

A COMPARATIVE CORPUS-BASED ANALYSIS OF COMPLEMENT
'-ing' CLAUSES USED IN THE BNC AND THE COURSEBOOKS

Mehmet NACAR

Supervisor : Dr. Zehra KÖROĞLU

Jury Member: Assoc. Prof. Dr. Gülden TÜM (Çukurova University)

Jury Member: Dr. Seden TUYAN

MASTER OF ARTS

MERSİN / MAY 2023

APPROVAL
REPUBLIC OF TURKEY
ÇAĞ UNIVERSITY
DIRECTORSHIP OF THE INSTITUTE OF SOCIAL SCIENCES

We **certify** that thesis under the title of “**A Comparative Corpus-based Analysis of Complement ‘-ing’ Clauses used in the BNC and the Coursebooks**” which was prepared by our student **Mehmet NACAR** with number 2021008012 is satisfactory **consensus** for the award of the degree of **Master of Arts** in the Department of **English Language Education**.

(The Original Copy Hold in the Institute Directorate is signed.)

Univ. Inside-Supervisor-Head of Examining Committee: Dr. Zehra KÖROĞLU

(The Original Copy Hold in the Institute Directorate is signed.)

Univ. Inside - Permanent member: Dr. Seden TUYAN

(The Original Copy Hold in the Institute Directorate is signed.)

Univ. Outside - Permanent member: Assoc. Prof. Dr. Gülden TÜM

I confirm that the signatures above belong to the academics mentioned.

(The Original Copy Hold in the Institute Directorate is signed.)

17 / 05 / 2023

Prof. Dr. Murat KOÇ

Director of Institute of Social Sciences

Note: The uncited usage of the reports, charts, figures and photographs in this thesis, whether original or quoted for mother sources is subject to the Law of Works of Arts and Thought. No: 5846.

ETHICS DECLARATIONS

Student's	Name & Surname:	Mehmet NACAR
	Number:	2021008012
	Department:	English Language Education
	Program:	Master Thesis (X) Ph.D. Thesis ()
	Thesis Title:	A Comparative Corpus-based Analysis of Complement ‘-ing’ Clauses used in the BNC and the Coursebooks

I hereby declare that;

I prepared this master thesis in accordance with Çağ University Institute of Social Sciences Thesis Writing Directive,

I prepared this thesis within the framework of academic and ethics rules,

I presented all information, documents, evaluations and findings in accordance with scientific ethical and moral principles,

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

The work of art in this thesis is original,

I hereby acknowledge all possible loss of rights in case of a contrary circumstance (in case of any circumstance contradicting with my declaration).

17 / 05 / 2023

Mehmet NACAR

ABSTRACT**A COMPARATIVE CORPUS-BASED ANALYSIS OF COMPLEMENT ‘-ing’
CLAUSES USED IN THE BNC AND THE COURSEBOOKS****Mehmet NACAR****Master Thesis, Department of English Language Education****Supervisor: Dr. Zehra KÖROĞLU****May 2023, 97 pages**

In Turkey, English as a Foreign Language (EFL) teachers have been using the coursebooks in their classrooms as a material. Despite the significance of the coursebooks in the EFL setting, it is contentious that the coursebooks administered by the Ministry of National Education are able to consist of authentic language and prepare learners for real life. Corpora, consisting of written and spoken data gathered from real lives of native speakers, can provide EFL learners and teachers with authentic language. It is possible that complement ‘-ing’ clauses, containing the semantic domains, have an important part in real life. In this regard, this study tried to compare the coursebooks and the British National Corpus (BNC) in the use of complement ‘-ing’ clauses in order to see the frequency, possible overuse and underuse of complement ‘-ing’ clauses in the coursebooks and to understand whether the coursebooks could reflect the language the English use in their real life. The coursebooks were turned into a plain text and compiled by using Key Word in Context (KWIC) software, and Sketch Engine was used to reach the BNC. In an attempt to understand whether there was a statistically significant difference between the corpus of the coursebooks and the BNC and whether there was an overuse or an underuse of complement ‘-ing’ clauses, the log-likelihood (LL) values were utilized. The results revealed that considering the overall frequency, there was a statistically significant difference between the coursebooks and the BNC in the use of complement ‘-ing’ clause. It was also understood that the coursebooks had the absence of lexical diversity although complement ‘-ing’ clauses were overused in overall frequency. This study helps better understand the importance of the use of complement ‘-ing’ clauses and authentic language in the coursebooks. Moreover, it can provide a

perspective in the use of complement ‘-ing’ clause for the designers of the coursebooks and the syllabi in Turkey.

Keywords: corpus linguistics, complement ‘-ing’ clauses, the BNC, the coursebooks administered by the Ministry of National Education



ÖZ**İNGİLİZ ULUSAL DERLEMİ VE DERS KİTAPLARINDA KULLANILAN
TÜMLEÇ ‘-ing’ YANTÜMCELERİN KARŞILAŞTIRMALI DERLEM
TABANLI ANALİZİ****Mehmet NACAR****Yüksek Lisans Tezi, İngiliz Dili Eğitimi Anabilim Dalı****Danışman: Dr. Öğr. Üyesi Zehra KÖROĞLU****Mayıs, 2023, 97 sayfa**

Türkiye’de İngilizceyi yabancı dil olarak öğretenler materyal olarak sınıflarında ders kitaplarını kullanmaktadırlar. İngilizce öğretiminde ders kitaplarının önemine rağmen Millî Eğitim Bakanlığı tarafından uygulanan ders kitaplarının gerçek hayatta kullanılan dili içerdiği ve öğrencileri gerçek hayata hazırladığı tartışmalıdır. İngilizceyi ana dili olarak konuşanların gerçek hayatlarından toplanan yazılı ve sözlü verileri içeren derlemeler, İngilizceyi yabancı dil olarak öğreten ve öğrenenlere gerçek dili sağlar. Anlamsal alanlar içeren tümleş ‘-ing’ yantümcelerinin gerçek hayatta önemli bir rol oynaması olasıdır. Bu bağlamda, bu çalışma, ders kitaplarının İngilizlerin gerçek hayatta kullandıkları dili yansıtır yansıtmadığını anlamak ve ders kitaplarındaki tümleş ‘-ing’ yantümcelerinin sıklığını, aşırı ya da az kullanımını görmek için ders kitaplarını ve İngiliz Ulusal Derlemi’ni karşılaştırmaya çalıştı. Ders kitapları düz metne çevrilmiş ve Key Word in Context (KWIC) programı kullanılarak derlenmiştir. Sketch Engine, Ulusal İngiliz Derlemi’ne erişmek için kullanıldı. Ders kitapları derlemi ve İngiliz Ulusal Derlemi arasında istatistiksel olarak önemli bir fark olup olmadığını ve tümleş ‘-ing’ yantümcelerinin fazla kullanımı ya da az kullanımı anlamak için log-likelihood (LL) değerleri kullanıldı. Sonuçlar, tümleş ‘-ing’ yantümce kullanımında ders kitapları ve İngiliz Ulusal Derlemi arasında istatistiksel olarak önemli bir fark olduğunu gösterdi. Ders kitaplarında, toplam frekansta, tümleş ‘-ing’ yantümcelerinin aşırı kullanılmasına rağmen, sözcüksel çeşitliliğin olmadığı da anlaşıldı. Bu çalışma ders kitaplarındaki gerçek dilin ve tümleş ‘-ing’ yantümcelerinin önemini anlamakta yardımcı olacaktır. Dahası, tümleş ‘-ing’ yantümce kullanımında, Türkiye’de ders kitapları ve öğretim programları tasarlayanlar için bir bakış açısı sağlayabilir.

Anahtar Kelimeler: derlem dilbilim, tümleç ‘-ing’ yantümceler, İngiliz Ulusal Derlemi, Millî Eğitim Bakanlığı tarafından uygulanan ders kitapları



ACKNOWLEDGEMENTS

I would like to express my sincere thanks to my supervisor, Dr. Zehra KÖROĞLU. Without her excellent guidance, help, feedback and continuous support, this study would not have been completed. Her academic guidance, I believe, provides me an insight through the way on the long journey in academic life that I have just started.

I would also like to thank Assoc. Prof. Dr. Güliden TÜM and Dr. Seden TUYAN, the members of my thesis committee, who provide critical judgement, useful comments and detailed feedback regarding my research. I am grateful for their support and invaluable remarks.



Mehmet NACAR

TABLE OF CONTENTS

COVER.....	i
APPROVAL	ii
ETHICS DECLARATIONS	iii
ABSTRACT	iv
ÖZ	vi
ACKNOWLEDGEMENTS	viii
TABLE OF CONTENTS	ix
ABBREVIATIONS	xii
LIST OF TABLES	xiii
LIST OF FIGURES	xiv
LIST OF APPENDICES	xv
1. INTRODUCTION.....	1
1.1. Background of the Study	1
1.2. Statement of the Problem	3
1.3. Purpose of the Study.....	4
1.4. Significance of the Study.....	4
1.5. Assumptions	5
1.6. Limitations.....	5
1.7. Operational Definitions	6
1.8. Corpus and Corpus Linguistics	6
1.9. Corpora in English Language Teaching	8
1.10. Corpora and Pattern Grammar.....	12
1.11. Characteristics of Complement ‘-ing’ Clauses.....	15
1.12. Coursebooks and Curriculum	16
1.13. Previous Studies on Coursebook Analysis	17
1.14. Previous Studies on Complement Clauses and Complement ‘-ing’ Clauses.....	19
2. METHODOLOGY	22
2.1. Introduction	22
2.2. Research Design	22
2.3. Data Collection and Analysis	22

2.4.	Log-likelihood (LL).....	28
2.5.	Key Word in Context (KWIC)	29
3.	FINDINGS	31
3.1.	Introduction	31
3.2.	The Frequency Analysis of Verbs of Aspect or Manner in the Coursebooks and the BNC	31
3.3.	The Frequency Analysis of Communication/Speech Act Verbs in the Coursebooks and the BNC	33
3.4.	The Frequency Analysis of Cognition Verbs in the Coursebooks and the BNC.....	34
3.5.	The Frequency Analysis of Perception Verbs in the Coursebooks and the BNC.....	35
3.6.	The Frequency Analysis of Verbs of Affective Stance in the Coursebooks and the BNC	37
3.7.	The Frequency Analysis of Verbs of Description in the Coursebooks and the BNC	38
3.8.	The Frequency Analysis of Verbs of Effort, Facilitation, or Hindrance in the Coursebooks and the BNC	39
3.9.	The Frequency Analysis of Verbs of (Dis)Agreement or (Dis)Approval in the Coursebooks and the BNC	41
3.10.	The Frequency Analysis of Verbs of Avoidance and Obligation in the Coursebooks and the BNC	42
3.11.	The Frequency Analysis of Verbs of Offense, Punishment, or Apology in the Coursebooks and the BNC	43
3.12.	The Frequency Analysis of Verbs of Required Action in the Coursebooks and the BNC	44
3.13.	The Frequency Analysis of All of the Semantic Domains in the Coursebooks and the BNC	46
4.	DISCUSSION AND CONCLUSION	47
4.1.	Introduction	47
4.2.	Conclusion.....	47
4.2.1.	Evaluation of the Verbs of Aspect or Manner Usage in the Coursebooks and the BNC	48

4.2.2. Evaluation of the Communication/Speech Act Verbs Usage in the Coursebooks and the BNC	49
4.2.3. Evaluation of the Cognition Verbs Usage in the Coursebooks and the BNC.....	49
4.2.4. Evaluation of the Perception Verbs Usage in the Coursebooks and the BNC.....	50
4.2.5. Evaluation of the Verbs of Affective Stance Usage in the Coursebooks and the BNC	51
4.2.6. Evaluation of the Verbs of Description Usage in the Coursebooks and the BNC	51
4.2.7. Evaluation of the Verbs of Effort, Facilitation, or Hindrance Usage in the Coursebooks and the BNC	52
4.2.8. Evaluation of the Verbs of (Dis)Agreement or (Dis)Approval Usage in the Coursebooks and the BNC	52
4.2.9. Evaluation of the Verbs of Avoidance and Obligation Usage in the Coursebooks and the BNC	53
4.2.10. Evaluation of the Verbs of Offense, Punishment, or Apology Usage in the Coursebooks and the BNC	54
4.2.11. Evaluation of the Verbs of Required Action Usage in the Coursebooks and the BNC	54
4.2.12. Evaluation of All of the Semantic Domains Usage in the Coursebooks and the BNC	55
4.3. Pedagogical Implications.....	55
4.4. Suggestions for Further Studies.....	57
REFERENCES	60
APPENDICES	72

ABBREVIATIONS

BNC	: British National Corpus
CEFR	: Common European Framework of Reference for Languages
CQL	: Corpus Query Language
DDL	: Data-Driven Learning
EFL	: English as a Foreign Language
ELT	: English Language Teaching
KWIC	: Key Word in Context
LL	: Log-likelihood
PCSAV	: Patterns of Communication/Speech Act Verbs
PCV	: Patterns of Cognition Verbs
PPV	: Patterns of Perceptions Verbs
PVAA	: Patterns of Verbs of (Dis)Agreement or (Dis)Approval
PVAM	: Patterns of Verbs of Aspect or Manner
PVAO	: Patterns of Verbs of Avoidance and Obligation
PVAS	: Patterns of Verbs of Affective Stance
PVD	: Patterns of Verbs of Description
PVEFH	: Patterns of Verbs of Effort, Facilitation, or Hindrance
PVOPA	: Patterns of Verbs of Offense, Punishment, or Apology
PVRA	: Patterns of Verbs of Required Action

LIST OF TABLES

Table 1. <i>The Frequency Analysis of the Patterns of Verbs of Aspect or Manner in the Coursebooks and the BNC.....</i>	32
Table 2. <i>The Frequency Analysis of the Patterns of Communication/Speech Act Verbs in the Coursebooks and the BNC.....</i>	33
Table 3. <i>The Frequency Analysis of the Patterns of Cognition Verbs in the Coursebooks and the BNC.....</i>	34
Table 4. <i>The Frequency Analysis of the Patterns of Perceptions Verbs in the Coursebooks and the BNC.....</i>	36
Table 5. <i>The Frequency Analysis of the Patterns of Verbs of Affective Stance in the Coursebooks and the BNC</i>	37
Table 6. <i>The Frequency Analysis of the Patterns of Verbs of Description in the Coursebooks and the BNC.....</i>	38
Table 7. <i>The Frequency Analysis of the Patterns of Verbs of Effort, Facilitation, or Hindrance in the Coursebooks and the BNC.....</i>	40
Table 8. <i>The Frequency Analysis of the Patterns of Verbs of (Dis)Agreement or (Dis)Approval in the Coursebooks and the BNC.....</i>	41
Table 9. <i>The Frequency Analysis of the Patterns of Verbs of Avoidance and Obligation in the Coursebooks and the BNC.....</i>	42
Table 10. <i>The Frequency Analysis of the Patterns of Verbs of Offense, Punishment, or Apology in the Coursebooks and the BNC</i>	43
Table 11. <i>The Frequency Analysis of the Patterns of Verbs of Required Action in the Coursebooks and the BNC.....</i>	45
Table 12. <i>The Frequency Analysis of All the Patterns of Semantic Domains in the Coursebooks and the BNC.....</i>	46

LIST OF FIGURES

Figure 1. <i>A Screenshot Showing “like + ‘-ing’ clause” Pattern</i>	25
Figure 2. <i>A Screenshot Showing “start + noun phrase + ‘-ing’ clause”</i>	27
Figure 3. <i>A Screenshot from Sketch Engine Showing “be + interested in + ‘-ing’ clause” Pattern</i>	28
Figure 4. <i>A Screenshot from KWIC Software Showing “like”</i>	30



LIST OF APPENDICES

Appendix A. Ethics Committee Permission Request Form	72
Appendix B. Semantic Domains of the Verbs.....	73
Appendix C. Research and Ethics Committee Permission.....	77
Appendix D. Research and Ethics Committee Permission.....	78
Appendix E. Thesis Permission Request Letter	79
Appendix F. Thesis Permission Letter	80
Appendix G. Coursebook Analysis Approval E-mail	81
Appendix H. Coursebook Analysis Approval E-mail	82



1. INTRODUCTION

1.1. Background of the Study

In the current epoch, teaching and learning foreign languages have a position of prime importance in developing an effective and comprehensible communication in various surroundings in the global atmosphere. Taking this into consideration, English can be used today as a lingua franca, which means that English is written and spoken by the majority of people all around the world in a wide range of domains, such as research and education. Therefore, learning the English language may be an urgent necessity in order for people to meet so many needs. For learners of English to internalize the language, they need to master not only four basic language skills, which are listening, writing, speaking and reading, but also different spoken and written registers, including academic prose, news and conversation. The specific linguistic patterns used in these registers are also significant for learners of English to keep understandable communication (Biber & Conrad, 2009). The difference between language use in these registers can be crucial in order for English as a foreign language (EFL) learners to understand and utilize the target language efficiently and accurately in real life. To illustrate, it is significant to be proficient in the lexico-grammatical elements, such as complement ‘-ing’ clauses, in spoken and written outputs so as to avoid potential misunderstandings between interlocutors and to prevent communication barriers.

Describing the term lexico-grammar as “grammar–vocabulary associations”, Conrad (2022) argued that the lexico-grammatical patterns were one of the “most common” elements (p. 223) in the analyses conducted by using corpus linguistics. It was important that corpus linguistics could provide a methodology whereby lexis and grammar united. While he was providing examples of the lexico-grammatical patterns, Halliday (2013) denoted that one of these lexico-grammatical items was complement ‘-ing’ clause. Complement ‘-ing’ clauses were used in a discourse for different purposes, for instance they might complete the specific meaning of the verb of the main clause (Miller, 2002; Quirk et al., 1985). Complement ‘-ing’ clauses could also be indicated in various patterns in different registers, including academic prose and conversation (Biber & Reppen, 1998; Biber et al., 2021). Using a corpus to conduct an empirical investigation on such lexico-grammatical items as complement ‘-ing’ clause, Biber et al. (2021) revealed that the patterns could assist in observing the detailed description of the discourse and the items examined. Hunston and Francis (2000) also demonstrated that

the pattern of a word described the relationship with the other words and determined its semantic and syntactic role in the discourse. Moreover, according to Williams (2002), instead of individual words in the texts, these lexico-grammatical patterns or collocations led the way in understanding and building the discourse. With the help of the lexico-grammatical patterns, complement ‘-ing’ clauses were also likely to convey and summarize the proposition in the discourse by indicating the interlocutors’ feelings and opinions (Charles, 2007). It could be seen that complement ‘-ing’ clauses and their patterns played a pivotal role which English as a foreign language (EFL) learners should be aware of and pay close attention to in the discourse. This study employed corpus-based techniques in order to see the use of complement ‘-ing’ clauses in the spoken and written discourses in the EFL coursebooks in Turkey. The notion of complement clauses, their semantic roles, forms and functions in the discourses have been studied by using corpus-based approach in recent years (Biber & Reppen, 1998; Francis et al., 1996; Hunston, 2003; Hunston & Francis, 2000; Rudanko, 2000, 2011; Wu & Lei, 2010; Zelenáková, 2016). Sinclair (1997) indicated that a corpus was a systematic, computerized collection of the authentic language utilized for linguistic analysis. Corpus linguistics, as a methodology, might have a key role for EFL researchers, teachers and learners to determine potential different language use between non-native and native speakers’ outputs. Meyer (2002) also indicated that a corpus could be used as a database developed by using authentic texts for linguistic or pedagogical objectives. Adopting pedagogical objectives, this study focused on the EFL coursebooks in Turkey.

In the EFL context in Turkey, the curriculum was changed in 2018, and the coursebooks used in the EFL classrooms were determined accordingly. Supporting communicative competence, learner autonomy, task-based and project-based activities, authentic materials and authentic use of language, the new curriculum (Milli Eğitim Bakanlığı, 2018), which was prepared by the Ministry of National Education in 2018, was the key figure while the Board of Education was ratifying the coursebooks. It was worth noting that the coursebooks to be used in the EFL classrooms were delivered by the Ministry of National Education in Turkey. It was also important to emphasize that when completed a high school, Turkish learners of English were expected to be in “a minimum CEFR B2+ and/or beyond level of English language proficiency” (Milli Eğitim Bakanlığı, 2018, p. 7).

Taking these mentioned into consideration, this corpus-based study addressed the frequency of complement ‘-ing’ clauses in the coursebooks to indicate the possible

overuse or underuse when they were compared to the British National Corpus (BNC). In addition, it aimed to observe whether there was a statistically significant difference in the complement ‘-ing’ clause use in the coursebooks when they were compared to the BNC. Therefore, it was possible to gain a view regarding the authenticity of the coursebooks used in the EFL high school classrooms in Turkey.

1.2. Statement of the Problem

In the second language development process, the English as a Foreign Language (EFL) teachers and learners in Turkish public schools used the coursebooks the Ministry of National Education provided as the instructional material. Emphasizing the role of the coursebooks in the EFL context, Shannon (2010) and Appel (2011) underlined that the coursebooks provided teachers and learners with a wide range of alternatives in the classrooms. Discussing the importance of the communicative strategies in the coursebooks employed in the EFL setting, Vettorel, (2018) underlined that although the coursebooks were likely to provide various activities and syllabi, they might lack authentic language. As James (2017) suggested, in order for learners to internalize the target language, the coursebooks should present the language students could use outside the class. Particularly in the EFL environment in Turkey, the coursebooks utilized in the classrooms of the public schools and provided by the Ministry of National Education seemed problematic when the language in them was compared to the authentic language in the corpora (Çakmak & Ersanlı, 2021; Gedik & Kolsal, 2022; Peksoy & Harmaoğlu, 2017). Güdücü and Güngör (2022) also conducted the study regarding the lexical items in the coursebooks, arguing that the coursebooks could be redesigned by utilizing the corpora. Moreover, Norberg and Nordlund (2018) and Arellano (2017) denoted that the coursebooks might have issues in word selection. Therefore, it could be understood that the coursebooks used in the EFL classrooms had problems in their content.

The coursebooks could include a wide variety of lexico-grammatical elements for EFL learners to learn English implicitly and explicitly. One of these elements in the coursebooks was complement ‘-ing’ clauses. Complement ‘-ing’ clauses could be seen in various levels ranging from A1 to C2 (Milli Eğitim Bakanlığı, 2018; Council of Europe, 2001). However, EFL learners possibly had difficulties in using complement ‘-ing’ clauses (Tizón-Couto, 2014; Yoon, 2016). In this respect, the present study tried to compare the frequency of the complement ‘-ing’ clause use in the coursebooks and the

British National Corpus (BNC) to better understand whether there was a statistically significant difference between them.

1.3. Purpose of the Study

This study tried to investigate the frequency of complement ‘-ing’ clauses (Biber et al., 2021) in the English as a Foreign Language (EFL) coursebooks provided by the Turkish Ministry of National Education in the high schools. This study was conducted by using corpus-based methodology, which made it possible to find out a statistically significant difference between the frequencies of complement ‘-ing’ clauses in the coursebooks and the BNC. This study which also indicated the overuse or underuse of complement “-ing” clauses in the coursebooks presented the semantic domains of the verbs used with complement ‘-ing’ clauses in the coursebooks, which were *verbs of aspect or manner, communication/speech act verbs, cognition verbs, perception verbs, verbs of affective stance, verbs of description, verbs of effort, facilitation, or hindrance, verbs of (dis)agreement or (dis)approval, verbs of avoidance and obligation, verbs of offense, punishment, or apology, and verbs of required action* (Biber et al., 2021). In order to reach the results, the following research questions were addressed:

1. Is there any statistically significant difference between the coursebooks used in the EFL classrooms in Turkey and the BNC in the use of complement ‘-ing’ clauses?
2. Is there any statistically significant difference between the coursebooks used in the EFL classrooms in Turkey and the BNC in the semantic domains of complement ‘-ing’ clause?

1.4. Significance of the Study

This study focused on the complement ‘-ing’ clause use in the coursebooks in Turkey and employed not only the written data but also the spoken data ranging from passages to dialogues in the listening transcripts utilized in the EFL settings. This study focused on the form and function of complement ‘-ing’ clauses suggested by Biber et al. (2021). Moreover, the semantic domains of the verbs used with complement ‘-ing’ clauses, which were *verbs of aspect or manner, communication/speech act verbs, cognition verbs, perception verbs, verbs of affective stance, verbs of description, verbs of effort, facilitation, or hindrance, verbs of (dis)agreement or (dis)approval, verbs of avoidance and obligation, verbs of offense, punishment, or apology, and verbs of required action*, were examined. Therefore, it could provide researchers and teachers

with an idea regarding the usage of complement ‘-ing’ clauses utilized in the coursebooks. It also helped raise the awareness of complement ‘-ing’ clauses among the EFL learners and teachers in Turkey. The current study showed the characteristics of the written and spoken discourse used in the coursebooks by analyzing the frequency, the frequency per 1,000 words and the overuse/underuse of complement ‘-ing’ clauses in them.

1.5. Assumptions

This study employed a corpus which included the coursebooks that were provided by the Ministry of National Education and were published in Turkey. This corpus consisted of *Teenwise* for the 9th grade; *Count Me In 10* and *Ortaöğretim İngilizce 10* for the 10th grade; *Silverlining* and *Sunshine* for the 11th grade; and *Count Me In 12* for the 12th grade. As maintained by Milli Eğitim Bakanlığı (2018), the levels of the coursebooks were A1-A2 for 9th grade, A2-B1 for 10th grade, B1-B2 for 11th grade and B2+ for 12th grade. The coursebooks consisted of the written and spoken discourse with various genres ranging from conversation to formal letter. Furthermore, it was assumed that the EFL teachers in Turkey used these coursebooks in their classrooms. By using the corpus containing the coursebooks, this study tried to explore the frequency of complement ‘-ing’ clauses and the overused or underused complement ‘-ing’ clause patterns in the coursebooks.

1.6. Limitations

One of the limitations of this study was the corpus content. The corpus used in the study included the students’ books, the workbooks and the listening transcripts. These coursebooks the teachers have used in the English as a Foreign Language (EFL) classrooms were *Teenwise*, *Count Me In 10*, *Ortaöğretim İngilizce 10*, *Silverlining*, *Sunshine*, and *Count Me In 12*. Therefore, it was seen that this study was limited to the characteristics of these coursebooks in the EFL classrooms in Turkey. Another limitation of this study was to analyze the use of semantic domains in the complement ‘-ing’ clauses between only the coursebooks and the British National Corpus (BNC).

1.7. Operational Definitions

Complement ‘-ing’ clause: Generally used with a verb, complement ‘-ing’ clause can be found in a pattern to provide various semantic domains in a discourse such as cognition, perception, affective stance and description (Biber et al., 2021).

Corpus Linguistics: “Study of language based on examples of real-life language use” (McEnery & Wilson, 1996, p. 1). Also, it is “a methodology rather than an aspect of language requiring explanation or description” (Stubbs, 1996, p. 231).

Corpus: “All the writings or works of a particular kind or on a particular subject.” (Merriam-Webster, n.d.). Linguistically, a corpus is a text or a collection of texts in a computerized database which can be utilized in qualitative and quantitative analyses (Baker et al., 2006).

Coursebook: In a language learning course, a textbook, used by the learners, consisting of activities on language skills such as listening, reading, vocabulary and grammar (Tomlinson, 2011).

Key Word in Context (KWIC): A software used so as to compile a corpus and make concordance lines (Tsukamoto, 2002).

Log-likelihood (LL): Log-likelihood (LL) is a statistical calculation employed to indicate that there is a statistically significant difference between two corpora (Scott, 1997).

The British National Corpus (BNC): The corpus containing samples of written and spoken British English language in 20th century (Baker et al., 2006).

1.8. Corpus and Corpus Linguistics

Although corpus linguists seemed to sit back on their comfortable chairs, searching for words or phrases in a large text or collection of texts by producing concordance lines with the help of a software to “make sense of phenomena”, corpus dated back to the thirteenth century in which Cristian Bible was indexed manually (O’Keeffe & McCarthy, 2010, p. 3). Moreover, corpus-based studies continued not only on Bible but also on Shakespeare’s works. However, these studies were conducted manually, in other words, scholars compiled the texts and made concordance lines by hand. Despite these manual studies, their motivation was the same one which today’s corpus linguists have built in their spirit (O’Keeffe & McCarthy, 2010).

Published in 1755, Dr Samuel Johnson’s English dictionary was prepared by using “a paper corpus” (O’Keeffe & McCarthy, 2010, p. 4). Oxford English Dictionary

was completed in the 1880s, and corpus-based techniques were used while it was amassed (O’Keeffe & McCarthy, 2010). They also added that even though the word *corpus* as a term of linguistics was seen in 1956, the word *corpus* which means a collection of texts was found in the eighteenth century. In the late 1950s, the first computer-based concordances were generated, and the term *Key Word in Context* started to gain interest. In Brown University, the Brown Corpus, the first electronic corpus in written discourse, was introduced in 1964 (Francis & Kučera, 1964). Although the first transcripts of it were collected in the 1960s to construct a corpus, *Child Language Data Exchange System (CHILDES)*, in which the data related to first language acquisition were collected, was formally introduced in 1984 (O’Keeffe & McCarthy, 2010). Developed by one of the Neo-Firthians, John Sinclair, at the University of Birmingham in 1980, *Collins Birmingham University International Language Database (COBUILD)* project had the key role in this field by providing dictionaries and grammar books such as *Collins COBUILD English Language Dictionary* and *Collins COBUILD English Grammar*. McEnery et al. (2006) reported that in the 1980s, the term *corpus linguistics* started to be seen in common usage. Today, aside from the various corpora employed by researchers, teachers, learners and material developers such as the British National Corpus (BNC), the British Academic Spoken English (BASE), the Cambridge Learner Corpus, the International Corpus of Learner English (ICLE), the Brexit Corpus and the Coronavirus Corpus, world-wide web might have the potential as a corpus (O’Keeffe & McCarthy, 2010; O’Keeffe & McCarthy, 2022; O’Keeffe et al., 2007). Additionally, corpora might help researchers interested in discourse analysis, literary studies, translation studies, pragmatics, sociolinguistics and language teaching and learning. According to Leech (1992) and Kennedy (1998), corpus linguistics could be used as a methodology in research. Therefore, it was important to offer a bird’s eye view to the theoretical framework of corpus linguistics.

Even though corpus had a long history, linguists started with Saussure not to focus on “the observation of data”, and the language was described as an abstract system (Tognini Bonelli, 2010, p. 14). Nonetheless, she added that in the post-Bloomfieldian linguistics, with the positivist and behaviorist climate, linguists were interested in observing data until Chomsky. Corpus linguistics obviously focused on performance, that is, corpus linguists tried to interpret the language that people used in their life. They utilized quantitative items, such as frequency, while analyzing the language in a corpus. Nevertheless, Chomsky argued that interlocutors’ competence was not observed by

conducting data analysis (Chomsky, 1965). It was important to note that, unlike Chomsky, corpus linguistics aimed to understand the real language used by people in their life. Furthermore, it could be seen that linguistics trends did not help corpus linguistics develop but the technology has had a part in its development (Tognini Bonelli, 2010). Wordsmith (Scott, 2009), Antconc (Anthony, 2007) and Sketch Engine (Kilgariff et al., 2014) were some of the software and online tools which made it possible to compile and analyze a corpus. These software and tools assisted researchers, learners and teachers in building a corpus by using various text formats ranging from plain text format (txt) to portable document format (pdf).

Even though corpus linguistics seemed to focus on collecting texts, “corpus evidence” (p. 19) might not help in evaluating a text (Tognini Bonelli, 2010). Discussing the differences between a text and a corpus, Tognini Bonelli (2010) clearly stated that this issue was not resolved. However, she added that a corpus, which might include numerous texts, was “read vertically” (p. 19) by using Key Word in Context (KWIC) and the frequencies of the recurrent words and patterns. A text was “read horizontally” (p. 19), taking clauses and sentences into consideration. In addition, it was important to note that a corpus linguist, paying attention to frequencies and concordance lines, tried to understand the authenticity in a corpus while comparing the corpus with the other one that consisted of the authentic language of native speakers.

The authentic language could be described as “the language produced by a real speaker/writer for a real audience, conveying a real message” (Gilmore, 2007, p. 98). This study used the British National Corpus (BNC) as the reference corpus, which contained written and spoken authentic language and tried to determine the authenticity in the English as a Foreign Language (EFL) coursebooks in the high schools in Turkey by analyzing the frequency of complement ‘-ing’ clauses and the semantic domains of them indicated by Biber et al. (2021).

1.9. Corpora in English Language Teaching

It could be seen that corpora have been utilized in several studies ranging from discourse analysis to language pedagogy (O’Keeffe & McCarthy, 2022). In the second language development process, corpora could provide lexical frequency lists, dictionaries, reference pedagogical grammar books, course materials, such as the coursebooks to be employed in the English as a Foreign Language (EFL) classrooms to indicate the use of authentic language and syllabus design (Xu, 2022). One of the

reference pedagogical grammar books was Biber et al.'s study *Grammar of Spoken and Written English* in 1999 and its second edition in 2021. This book indicated the patterns by using the frequency and the quantitative terms in various registers such as conversation, academic discourse, news and fiction. This book, which utilized the Longman Spoken and Written English Corpus while describing the patterns in written and spoken discourse, was also the reference book for this current study so as to find out complement '-ing' clauses in the BNC and the EFL coursebooks. The other role of corpus was to provide various methods and techniques in the EFL context, including data-driven learning and learner corpora, for those who seek authentic language in the second language learning process.

In the English as a Foreign Language (EFL) atmosphere, students, teachers and researchers tried to explore various methods and techniques in an effort to understand and improve the language acquisition and learning process. Moreover, the students' and teachers' needs, such as authentic language use in language learning and teaching, were becoming a demanding issue in the EFL classrooms (Larsen-Freeman, 2013). According to Sinclair (1991), authentic language could be gathered by using the way people uttered the language in their real life without any interruptions and, probably more importantly, without "experimental conditions or in artificial conditions of various kinds" (p. 3). According to Biber et al. (1998), Biber and Reppen (1998) and Reppen (2006), a corpus was a collection of natural, authentic texts compiled systematically in order for teachers, learners and researchers to analyze the language used. By using these authentic texts, namely corpora, language utterances of native and non-native speakers could be compiled, counted and selected with the help of a software (Hunston & Francis, 2000). By utilizing corpus linguistics techniques in language pedagogy, it was possible to develop learner corpora to see and understand how language was utilized by EFL learners. As Granger (1998) stated, "learner corpora studies use the methods and tools of corpus linguistics to gain better insights into authentic learner language" (p. 26).

Described as "home-made corpora" by Aston (2002), learner corpora could reflect "the learner's knowledge and concern" (p. 11), and it was possible to compare and contrast native speaker and learner corpora in order to label the differences between them. Granger (2002) denoted that learner corpora could mostly focus on Contrastive Interlanguage Analysis (CIA) and Computer Aided Error Analysis (EA). CIA could provide differences between native and non-native data (Granger, 2002). EA provided EFL learners' errors or mistakes in interlanguage. Therefore, as Paquot (2010) noted,

learner corpora presented empirical evidence regarding EFL learners' language acquisition and learning process. Learner corpora also showed "lexical specificities" of native and non-native speakers' spoken and written outputs (Paquot, 2010, p. 217).

Furthermore, due to the characteristics of corpus linguistics, such as being empirical and providing statistics, a great number of texts produced by English as a Foreign Language (EFL) learners can be examined objectively (Bennet, 2010). Learner corpora could also reflect the quantitative and qualitative characteristics of written and spoken outputs of EFL learners (Biber et al., 1998). For the quantitative part, for instance, it was possible to determine whether there was a statistically significant difference between native and non-native speakers' corpora. For the qualitative part, concordance lines could be analyzed, and thus, semantic prosody (Hunston, 2007) might be detected in the EFL learners' outputs. In addition, it was possible that using learner corpora in language pedagogy provided the knowledge with respect to the EFL learners' style, register patterns they used, differences of male and female learners in the use of language and their proficiency levels (Biber et al., 1998).

Learner corpora assisted EFL learners, teachers and researchers in identifying mistakes and differences in their outputs since learner corpora could be compared with native speakers' corpora with similar characteristics. O'Keeffe and Farr (2003) expressed their belief that learner corpora could be seen as a diagnostic tool for EFL learners and teachers since corpus might help in detecting overusing, underusing or misusing lexical or syntactical items in order to see the linguistic and pedagogical phenomena, such as interlanguage, fossilizations and patterns of errors. Explaining corpus-based techniques in language pedagogy, Granger (2002) emphasized that EFL learners did not need to study on traditional language learning techniques. Instead, they had opportunity to focus on mistakes and errors in their own spoken and written outputs. Comparing native and non-native corpora was likely to give feedback regarding the difficulties that EFL learners had. Supporting the learner corpora, Meunier (2002) pointed out that this method might lead EFL learners to feel satisfied owing to the fact that they could have opportunity to compare their outputs with the native speakers' ones. Additionally, Meunier (2002) stated that learner corpora provided "negotiation, interactivity and interaction among learners and between learners and teachers" (p. 134). In short, learner corpora provided insights about how EFL learners were close to native-like proficiency level and about what they achieved in the process of language acquisition and learning (Granger, 2002). In addition to learner corpora, owing to the fact that corpora could

consist of authentic language utilized by native speakers, learners might encounter corpora in the EFL setting in various ways, and one of them was data-driven learning (DDL).

Proposed by Johns (1991), data-driven learning (DDL) has possibly taken its place in the EFL setting since DDL differed from other traditional language learning and teaching methods, such as grammar translation method. DDL required English as a foreign language (EFL) learners to critically analyze the specific patterns or words which were provided by concordance lines and to see how the lexical or grammatical items worked in real language environment (Boulton, 2016). In DDL, EFL learners had access to authentic language/linguistic data like a researcher by employing corpus linguistics. Hadley and Charles (2017) also denoted that DDL assisted EFL learners in raising language consciousness. Köroğlu and Tüm (2017) reported that DDL provided learners with the real-life context and help them to discover the language. According to Tognini Bonelli (2001), by means of DDL, learners of English could have the opportunity to reach real and authentic language use, which facilitated making assumptions about how linguistic patterns should work. DDL also made it possible for EFL learners and even teachers to employ empirical research in the ELT setting (Tognini Bonelli, 2001). Biber and Reppen (2002) pointed out that DDL played a pivotal role in identifying frequent patterns in various discourses and in seeing the empirical description of language in EFL atmosphere.

At this point, some questions might raise, one of which was what an EFL learner was expected to see when they looked at the corpus. The answer was given by Bellés-Fortuño (2008, p. 37):

...quantifying (counting the number of given words or sentences), concordancing (producing lists of linguistic items and their immediate linguistic context in order to determine syntactic, semantic and pragmatic properties) and parsing (separating sentences into grammatical parts) and labeling (syntactic analysis) or tagging parts of speech.

Next question might be why Data-Driven Learning (DDL) should be employed in language pedagogy. DDL assisted EFL learners and teachers in observing the authentic context and in exploring lexical and grammatical items such as complement clauses in the text inductively. DDL was a learner-centered method and supported inductive

approach. Ellis (1992) emphasized the importance of inductive approach that required EFL learners to explore and construct the linguistic principles using the authentic language.

Supporting the positive influences of Data-Driven Learning (DDL) in the EFL classrooms, Pérez-Paredes et al. (2012) and Chambers (2015) denoted that corpus supported EFL learners, teachers and researchers observing the authentic language and gave key information regarding how language worked. Bernardini (2002, 2004) and Hunston (2002a) stated that the use of corpora in ELT was likely to facilitate the language acquisition and learning process since corpora included the neutral, natural and authentic language. Furthermore, Gaskell and Cobb (2004) found that observing concordance lines and DDL provided EFL learners with portions of sentences, labeled as Key-Word-In-Context (KWIC), so that, students were able to explore the meaning and the use of the lexical and grammatical patterns. DDL also presented EFL learners the knowledge regarding the grammatical patterns, the word usage, the semantic and pragmatic characteristics (Flowerdew, 2009; Römer, 2008, 2009). However, the level of learners might not be adequate to interpret the concordance lines, and students were likely to get lost their way in concordance lines. Emphasizing the role of the teacher in DDL, Tognini Bonelli (2004) provided support for the argument that teachers should be involved and guide EFL learners whenever they need in the classroom atmosphere, which made students confident while they discovered and acquired the new linguistic patterns. Learners could have a chance to study language patterns, and teachers should monitor them. Additionally, they should give courage to the students to discover the linguistic patterns they seek (Hadley & Charles, 2017). In short, corpus linguistics seemed to have significant parts in the ELT setting, such as learner corpora and DDL. It was important that corpora had the potential to bring authentic materials for teachers to use in the classroom environment.

1.10. Corpora and Pattern Grammar

Corpus linguistics undoubtedly provided those who were interested in the notion of language with the new ideas about how lexis and syntax were built in the discourse we produced. According to Römer (2008, 2009), in the traditional point of view in English language teaching, vocabulary and grammar were considered as two independent concepts, and they were not interrelated. However, corpus linguistics assisted in exploring the lexical and grammatical patterns which were used in written and spoken

discourse. Since this present study tried to understand the use of complement ‘-ing’ clauses patterns in the EFL coursebooks in Turkey, it seemed vital to understand the concept of *pattern*.

The concept of pattern which was employed while we produced the language could be seen in such studies as Hornby’s *A Guide to Patterns and Usage of English* (1954), Francis’s *A corpus-driven grammar* (1993, 1995), Hunston and Francis’s *Pattern Grammar* (2000), Biber et al.’s *Lexical Bundles* (2004), Hoey’s *Lexical Priming* (2005), and Halliday’s *Systematic Functional Linguistics* (2013). Firth’s *meaning by collocation* (1957) and Sinclair’s *idiom principle* (1991) were also significant concepts that supported pattern grammar. According to Firth (1957, 1968), *collocation* and *colligation* were terms which described the relationship of the words and the grammatical items. In addition, Firth (1957, 1968) argued that a particular word could be used with the other word frequently, and that word might receive its meaning when they were used together with the other lexical and/or grammatical items in specific discourse.

Supporting Firth’s claims (1957, 1968) and conducting studies based on corpus-based methodology, Sinclair (1991) introduced the idiom principal phenomenon in language use. Sinclair (1991) denoted that language could be produced by interlocutors using “semi-preconstructed phrases” (p. 110) in their written and spoken outputs. In his book, *Corpus, Concordance and Collocation*, Sinclair (1991) argued that there might be an association between meaning and syntax. Sinclair claimed that the word “*yield*” was likely to have distinctive meanings when it was used in different patterns. Maintaining Firth’s (1957, 1968) claim of *collocation* and *colligation*, Sinclair (1991, 1997) also argued that each word might exist in limited number of syntactic and phraseological structures through which the word gained meanings. Consequently, the meanings of a single word could be shown and differentiated semantically in the phraseological patterns in the discourse. Furthermore, Halliday (2013) indicated that each unit in a sentence, whether lexical or grammatical, was interrelated and constituted interdependency among the others in a meaningful context. Sinclair (1991) and Halliday (2013) supported their theoretical assertions by employing corpus linguistics methodology; therefore, they could provide empirical evidence by using the authentic language which corpora provide. Furthermore, Biber et al. (2004), who utilized corpus-based approach in research, introduced recurrent patterns in language use. According to Biber et al. (2004) and Biber and Barbieri (2007), in natural and authentic language, it could be observed that language

users were likely to utilize a large number of lexical bundles, in other words, fixed expressions, which were revealed through corpus linguistics.

Pattern grammar was based on corpus-based description of English language by giving priority to the “behavior of individual lexical items” (Hunston, 2002, p. 168). The theory indicated that lexical items were interconnected with other lexical or grammatical items. Hunston and Francis (2000) highlighted the prerequisites in order to determine whether a phrase was a pattern or not, which were: “if a combination of words occurs relatively frequently, if it is dependent on a particular word choice, and if there is a clear meaning associated with it.” (p. 37). It could be seen that the theory of pattern grammar illustrated that, firstly, a pattern should be frequent in the discourse in order to be identified as pattern. Secondly, dependency had a role in identifying patterns. Words, which formed patterns, should be dependent on each other. Thirdly, the lexical elements of the pattern should modify the meaning of the words. Therefore, it was important to interpret concordance lines in order to understand whether a fixed group of words constituted a pattern or not (Hunston & Francis, 2000).

In order to exemplify above mentioned, Hunston and Francis (2000) underlined that by investigating concordance lines, it was possible to better observe and understand whether particular lexical elements were a pattern. They indicated that the fact that the use of “the passive verb ‘be spent’ was followed by an ‘-ing’ clause” seemed “typical” (p. 2), and it could be one of the complementation patterns. Additionally, Su (2015), examining the adjective patterns, selected two sentences from the British National Corpus (BNC), which were: “He was good at school (CL2 240)” and “I am good at singing and projecting my image (ADR 2055)” (p. 16). In the first sentence, the lexical item “good” was not in a pattern inasmuch as the preposition “at” did not contribute to the adjective “good” semantically. Moreover, the preposition “at” was not dependent on the adjective “good”. In contrast, in the second sentence, “good at” was a pattern “adjective + at” since the behavior of the adjective “good” and preposition “at” were interconnected and dependent to each other. In addition, these words, which formed “adjective + at” pattern, were semantically specific. Therefore, determining whether a group of words constituted a pattern required frequency, dependency, specifying the meaning and interpreting concordance lines (Hunston & Francis, 2000).

Coding and analyzing the complementation patterns, Hunston and Francis (2000) focused on “the specification of items that follow the key word” (p. 77). It was possible to note that, instead of using structural constituents such as “object” and “subject”,

Hunston and Francis (2000) employed the lexical items which co-occurred with the key word in order to code the patterns, such as “*V + -ing*”, which showed the verb followed by ‘*-ing*’ clause (Hunston, 2011). It was understood that pattern grammar suggested by Hunston and Francis (2000) could be an effective way of analyzing complement ‘*-ing*’ clauses in the EFL coursebooks in Turkey.

This present study had a pedagogical side, which was to understand the use of complement ‘*-ing*’ clause patterns in the EFL coursebooks. Therefore, it was important to focus on the pedagogical side of pattern grammar. It was likely that pattern grammar assisted in raising learners’ consciousness about the foreign language. Additionally, it could help EFL learners improve accuracy and fluency in their outputs (Hunston & Francis 2000; Hunston 2002a, 2002b, 2007, 2013). It might be seen that pattern grammar played a part in foreign language learning and language acquisition.

In conclusion, as Stubbs (1996) argued, the lexical patterns assisted researchers, teachers and learners about not only how to describe the language, but also understand the relationship among lexis, grammar and pragmatic characteristics of a text. The role of corpus linguistics was to indicate and determine the patterns used naturally by interlocutors. It was significant that, through corpus linguistics, EFL learners could gain awareness with respect to the patterns utilized in materials such as the coursebooks on which this current study focused.

1.11. Characteristics of Complement ‘*-ing*’ Clauses

Examining the frequency of complement ‘*-ing*’ clause patterns in written and spoken discourses produced in Turkish EFL coursebooks, this study was based on the use and the explanation of complement ‘*-ing*’ clauses in Biber et al. (2021) study. One of the reasons to employ Biber et al. (2021) was that this current study and Biber et al. (2021) were conducted by using corpus-based techniques. They employed the Longman Spoken and Written English Corpus (the LSWE Corpus) consisting of “over 40 million words of text” (p. 4). Complement ‘*-ing*’ clauses were examined in four registers, which were: conversation, fiction, news and academic prose. Therefore, the findings could reflect the use of complement ‘*-ing*’ clauses in written and spoken discourse. Secondly, Biber et al. (2021) also presented a detailed information about “the form and function of complement clauses” (p. 651), and examined types of complement clauses, such as ‘*-ing*’ clauses. Moreover, the semantic domain of each lexical item was described. The third reason was that Biber et al. (2021) described explicitly the structural patterns of

complement clauses in the corpus analyzed. Therefore, their study was selected as a basis for this study that analyzed the complement ‘-ing’ clause use in the English as a foreign language (EFL) coursebooks in Turkey.

According to Biber et al. (2021), complement clauses, which was “a type of dependent clause”, could form “the meaning relationship of an associated verb or adjective in a higher clause” (p. 652). Complement clauses were also defined as “nominal clauses” since they might behave as a noun phrase in a sentence (Biber et al., 2021, p. 652). Complement ‘-ing’ clauses were formed in non-finite clauses in a sentence. For complement ‘-ing’ clauses, they provided an example:

“He began crunching it gently but firmly.” (p. 652)

In the example from the LSWE Corpus above, complement clauses were used with a verb in the post-predicate position in the sentences. It seemed that Biber et al. (2021) provided broader perspective by presenting the semantic analysis and the construction of complement ‘-ing’ clauses in English language. They revealed that “*verb + ‘-ing’ clause*” and “*verb + noun phrase + ‘-ing’ clause*” were the patterns used in the corpus (p. 732). Verbs of aspect or manner (“*begin*” and “*come*”), communication/speech act verbs (“*acknowledge*” and “*complain*”), cognition verbs (“*remember*” and “*believe*”), perception verbs (“*hear*” and “*see*”), verbs of affective stance (“*cannot bear*” and “*do not care for*”), verbs of description (“*amount to*” and “*account of*”), verbs of effort, facilitation, or hindrance (“*achieve by*” and “*adapt to*”), verbs of (dis)agreement or (dis)approval (“*accept*” and “*agree*”), verbs of avoidance and obligation (“*avoid*” and “*escape*”), verbs of offense, punishment, or apology (“*accuse*”, and “*admit*”), verbs of required action (“*need*” and “*want*”) were the semantic domains and examples of verbs indicated by Biber et al. (2021).

1.12. Coursebooks and Curriculum

Although there was a “vociferous” argument regarding the necessity of coursebooks in the English as a foreign language (EFL) context (Norton & Buchanan, 2022, p. 49), in Turkey, the coursebooks administered by the Ministry of National Education were utilized by the teachers in the classrooms. As a matter of fact, the coursebooks which consisted of the student’s books, their workbooks and teacher’s books were delivered in published and online form in the high schools in the beginning

of each academic year, and the digital audio files were also accessible online. Discussing the possible reasons of the popularity of coursebooks, Allen (2015) and Tomlinson and Masuhara (2018) underlined that coursebooks maintained support and assistance for the stakeholders in English language teaching. It was possible that coursebooks helped teachers, who were not native speakers, to provide materials and reference points with respect to language use in an appropriate proficiency level, ranging from lexis and grammar to cultural content. Furthermore, coursebooks offered school administrations and parents topics to be studied in the academic year (Norton & Buchanan, 2022). On the other hand, arguing that coursebooks were reductionist, Tomlinson and Masuhara (2018) stated that coursebooks had “the scarcity of opportunities for authentic communication” (p. 27). Buchanan and Norton (2014), conducting a survey with EFL teachers, also indicated that coursebooks were likely to have inauthenticity in language use. While the argument concerning the use of coursebooks between researchers in the EFL context continued, it was important to note that the coursebooks were a mirror of the curriculum in Turkey.

Apart from syllabus, curriculum encompassed planning for educational goals, pedagogical approaches, methods and techniques, principles of knowledge domains, evaluation strategies and administration (Nunan, 1988; Nunan, 2001; Ornstein & Hunkins, 2018). According to Milli Eğitim Bakanlığı (2018), the curriculum for the high schools (9th-12th grades) in Turkey was developed as per the Common European Framework of Reference for Languages (CEFR). The curriculum adopted communicative competence, functions of language and collaboration of adolescent learners. Supporting authentic assessment and learner autonomy, the curriculum included task-based and project-based activities (Milli Eğitim Bakanlığı, 2018). In conclusion, the coursebooks and the curriculum were tools which built a framework for learners, teachers, parents and administrators in Turkey.

1.13. Previous Studies on Coursebook Analysis

In a conference in 2006, Gabrielatos who discussed the if-conditionals use in the coursebooks described his study as “pedagogy-driven corpus-based research” (p. 1). In the EFL context in Turkey, this present study, which analyzed and compared the frequency of complement ‘-ing’ clauses in the coursebooks and the British National Corpus (BNC), was also a pedagogy-driven corpus-based research. There were other

studies on coursebook analysis, and this part discussed the coursebook analyses that used corpus-based methodology.

One of the studies, which conducted corpus-based coursebook analysis in the EFL context, was Peksoy and Harmaoğlu's. Peksoy and Harmaoğlu (2017), who used normalized frequency, Sketch Engine and the log-likelihood (LL) values as this present study did, compared the Spoken BNC and the EFL coursebooks used in the high schools to observe a significant overuse and underuse of tenses. Emphasizing the importance of authentic language and communicative competence in the EFL context, Peksoy and Harmaoğlu (2017) indicated that the coursebooks "do not reflect authentic language" (p. 303), and corpora should be utilized in developing materials.

Focusing on dialogues in B1 and B2 level Turkish coursebooks in the high schools, Çakmak and Ersanlı (2021) utilized the Spoken BNC2014 as the reference corpus in an attempt to see the pragmatic functions in the spoken part of the coursebooks. In addition, they employed a native speaker's remarks to determine the authenticity of the dialogues in the coursebooks as a qualitative part of their study. Çakmak and Ersanlı (2021) highlighted that the coursebooks might have issues in providing pragmatic functions for EFL learners, for instance, discourse markers were statistically underused. Moreover, qualitative results showed that the coursebooks were likely to have authenticity problems, for example, the coursebooks seemed to have uncommon usage, incorrect grammar and lexical items.

Addressing the lexical items used in the 8th grade coursebooks in the EFL setting in Turkey, Güdücü and Güngör (2022) employed the BNC, the COCA, the Academic Word List and the English Vocabulary Profile. Güdücü and Güngör (2022) explored the most recurrent lexical elements in the coursebooks and compared the most frequent lexical elements in the coursebooks, the BNC, the COCA, the Academic Word List and the English Vocabulary Profile. They highlighted that the coursebooks should reconsider the selection of lexis, considering the corpora consisting of outputs of native speakers. They also underlined the importance of data-driven learning and argued that corpus-based studies conducted in the EFL context could assist in developing materials, such as coursebooks and designing curriculum.

The other study, focusing on the Turkish EFL coursebooks in the high schools was Gedik and Kolsal (2022). In order to see the possible difference between the coursebooks and the exams administered in the EFL setting in Turkey, they utilized the corpus consisting of the exams prepared and organized by ÖSYM. The study underlined

that there were possible lexical differences between the Turkish EFL coursebooks and the exams. Also, “lexical diversity” and “syntactic complexity” might be seen in the exams when they were compared to the coursebooks (Gedik & Kolsal, 2022, p. 157).

Apart from the EFL context in Turkey, there were also studies conducting coursebook analysis, such as Alavi and Rajabpoor (2015), Godoy de la Rosa (2014), Hsu (2018), Norberg and Nordlund (2018), and Parizoska and Rajh (2017). Although these studies employed different corpus-based approaches from this current study, one of the native speaker corpora they used in their coursebook analyses was the BNC, and this present study also utilized the BNC as the reference corpus. Unlike this present study, they did not use the log-likelihood (LL) values to determine the difference between the corpora. However, these studies emphasized the importance of corpora and the use of authentic language in the EFL setting and particularly in the coursebooks. Employing the BNC as the reference corpus, this current study tried to explore the frequency of complement ‘-ing’ clauses in the EFL coursebooks used in the high schools and utilized the log-likelihood (LL) to determine the statistically significant difference between the coursebooks and the reference corpus.

1.14. Previous Studies on Complement Clauses and Complement ‘-ing’ Clauses

It seemed that complementation was an important subject paid attention by such researchers as Biber et al. (2021), Huddleston and Pullum (2002), Mair (2003), Noonan (2007), and Quirk et al. (1985), who focused on the forms of complement clauses in the discourse. There were also studies that analyzed the complement clauses use and changes in American and British English by using corpus-based or other methods, such as Hunston (2003), Gawlik (2013), Gries and Stefanowitsch (2003), Groom (2005), Peacock (2011), Rudanko (1989, 1996, 1999, 2000, 2003, 2005, 2011) and Stefanowitsch and Gries (2005). However, the aim of the current study was pedagogical. Therefore, in this part, corpus-based studies regarding complement clauses and complement ‘-ing’ clauses in the EFL context were focused.

It was possible that Tizón-Couto (2014) provided a landscape by analyzing types of complement clauses in learner spoken corpora. For the study, Tizón-Couto (2014) employed three learner corpora, which were: Vigo Corpus of Learner Spoken English (VICOLSE), LINDSEI German and LINDSEI Spanish. The reference corpus utilized in Tizón-Couto (2014) was LOCNEC. VICOLSE was compiled by the researcher and designed to make comparison with LINDSEI and LOCNEC. All of the four corpora were

tagged manually in order to make it possible to analyze complement clauses built with adjectives, nouns and verbs. Providing EFL teachers with ample examples from the native and non-native spoken corpora, Tizón-Couto (2014) reported that there seemed to be a statistically significant difference in the complement clauses use between native and non-native speakers. Non-native speakers seemed to overuse complement clauses in their spoken discourse when compared to native speakers.

Investigating infinitive and gerund complementation clauses in Spanish and German ICLE, Martínez-García and Wulff (2012) found that advanced level ESL learners were better in using gerund clauses than in using “to” clauses in their written discourse. German and Spanish ESL learners tended to overuse phrasal verbs and aspectual verbs while constructing complement ‘-ing’ clauses. Moreover, it seemed that Spanish ESL learners were “less proficient” than the German ones not because Spanish ESL learners used complement clauses ungrammatically but because they were unable to make native-like phraseological choices (Martínez-García & Wulff, 2012, p. 240). The researchers also analyzed the instructional materials ESL learners used in the classroom setting and denoted that the materials were inadequate. Martínez-García and Wulff (2012) indicated that the materials which consisted of the verbs and the patterns in complement “to” clauses and complement ‘-ing’ clauses should be designed by means of the corpus of native speakers.

In addition to infinitive and gerund clauses, Wulff, Lester and Martinez-Garcia (2014) examined “that” clauses in the written outputs of German and Spanish EFL learners in ICLE. In using “that” clause, according to Wulff, Lester and Martinez-Garcia (2014), German EFL learners approximated native speakers when compared to Spanish EFL learners. They also indicated that in the EFL setting, the materials based on “authentic native speaker corpora” (p. 295) could be used in order to provide knowledge with respect to the “that” clause use.

Larsson (2017) analyzed “introductory it” pattern in academic writing by employing three corpora. Advanced Learner English Corpus (ALEC) consisted of written products of students at Stockholm University in Sweden studying English linguistics and English literature. British Academic Written English corpus (BAWE) was compiled in the UK by using university students’ written products. Michigan Corpus of Upper-Level Student Papers (MICUSP) included the written outputs of University of Michigan. According to Larsson (2017), non-native speakers whose writings were likely to get lower grade seemed to overuse “introductory it” pattern in their discourse. “Introductory

it” pattern, which was considered important particularly in ESP and EAP, was used more erroneously, and it needed to be taught in the EFL settings (Larsson, 2017).

Employing TICLE in his study, Kilimci (2014) analyzed “*that*” clauses in the Turkish EFL setting. In his study, Kilimci (2014) used a part of TICLE, which had 168,626 tokens. He highlighted that “*that*” clause in the written products of Turkish EFL learners was overused. His study was also based on the first edition of Biber et al.’s study (1999), and this current study is based on the second edition of the same study in 2021. He argued that “*that*” clauses used with mental verbs were overused by Turkish EFL learners although “*that*” clauses used with speech act verbs were underused.

Hewings and Hewings (2002) studied on “*it-clauses*” (p. 367), by compiling two corpora, Journals corpus (Jourcorp) and Dissertations corpus (Discorp) and used WordSmith Tools. Jourcorp consisted of 28 papers and 123,633 words, and Discorp included 15 dissertation and 203,389 words. Stating that the findings could be used in teaching academic writing in the EFL setting, Hewings and Hewings (2002) pointed out that “*it-clauses*” might be used in an attempt to “persuade readers” (p. 367) in their written discourse.

Employing argumentative essays of 158 Chinese EFL learners, Man and Chau (2019) focused on “*that*” clause by employing corpus-based method. The longitudinal corpus used by Man and Chau (2019) consisted of 632 texts and 138,942 words. The researchers examined the change of “*that*” clause used by Chinese EFL learners over time and found that the use of “*adjective ‘that’ clause*” and “*noun ‘that’ clause*” increased over time in the written outputs of non-native speakers.

The present study focused on the Turkish EFL coursebooks for pedagogical purposes. This study aimed to determine whether there was a statistically significant difference in the use of complement ‘-ing’ clauses between the coursebooks and the BNC. This study also presented the frequency, the frequency per 1,000 words and the log-likelihood (LL) analysis of the semantic domains of complement ‘-ing’ clauses (Biber et al., 2021) found in the coursebooks and the BNC. Therefore, it was possible to see the difference between the Turkish EFL coursebooks and authentic language of native speakers in the use of complement ‘-ing’ clause.

2. METHODOLOGY

2.1. Introduction

This chapter aimed to present the detailed information about the methodology of the study. Describing the sampling of the study, which was the EFL coursebooks utilized in Turkey, the procedure about how this study was conducted and which steps were taken was discussed in order to answer the research questions. The research design, the data collection tools and the analysis procedures were highlighted in this methodology chapter. This corpus-based study focused on the coursebooks and the British National Corpus (BNC) so as to see the overuse or underuse of complement ‘-ing’ clauses in the EFL coursebooks and to determine whether there was a statistically significant difference between them.

2.2. Research Design

This study used a descriptive and a quantitative research methodology. According to McMillan and Schumacher (2014), a descriptive study “describes an existing or past phenomenon” by using “quantitative terms” (p. 2), which meant that descriptive studies indicated and were limited to the characteristics of a phenomenon. McMillan and Schumacher (2014) also added that descriptive studies showed the frequencies as this present corpus-based study did. Descriptive studies provided data regarding the nature of the status investigated, and this study investigated the frequency of complement ‘-ing’ clauses. As the research methodology used in this study was descriptive and quantitative, the frequency counts, the frequency per 1,000 words, the overuse/underuse of complement ‘-ing’ clauses and possible statistically significant difference between the BNC and the coursebooks were determined.

2.3. Data Collection and Analysis

This study tried to find out the frequencies of complement ‘-ing’ clauses in the coursebooks and the British National Corpus (BNC) and to determine whether complement ‘-ing’ clauses were overused or underused in the written and spoken discourse in the coursebooks provided by the Turkish Ministry of National Education in the high schools. Also, this study presented the semantic domains of complement ‘-ing’ clauses used in the coursebooks prepared for the EFL learners in the public schools. These coursebooks and their CEFR levels were for the 9th grade *Teenwise* (A1-A2); for

the 10th grade *Count Me In 10* and *Ortaöğretim İngilizce 10* (A2-B1); for the 11th grade *Silverlining* and *Sunshine* (B1-B2); for the 12th grade *Count Me In 12* (B2+) (Milli Eğitim Bakanlığı, 2018). These coursebooks were selected for this study since the convenience sampling was employed in the study. According to Bryman (2012), a convenience sample was accessible to the researcher, and the researcher of this present study is a teacher in a high school. Therefore, the coursebooks in the high schools were utilized in this study.

For this study, six student's books mentioned, their workbooks and transcripts of the listening activities in the coursebooks which were required by the Ministry of National Education Board of Education were adopted in order to compile the corpus since these materials were taken into account in the classroom environment. The activities in the students' books and the workbooks were accepted as completed while the corpus was built because these activities were conducted by the EFL learners with guidance of the teacher. The EFL learners might encounter complement '-ing' clause in various parts of the coursebooks. In other words, they might be exposed to complement '-ing' clauses in the coursebooks implicitly and explicitly during the lesson. Thus, it was important to include all the units and activities in the coursebooks while the corpus was compiled. The corpus designed by using the coursebooks consisted of 345,438 words. To construct the corpus, the coursebooks were turned into a plain text format and compiled by utilizing Key Word in Context (KWIC) concordance program, which made it possible to compile and manage corpora to study (Tsukamoto, 2002). National Anthem, Atatürk's Address to Turkish Youth and the reference parts of the coursebooks and their workbooks were excluded since they were out of the curriculum in English language teaching.

This study employed the British National Corpus (BNC) as the reference corpus to compare and observe the overuse or underuse of complement '-ing' clauses in the coursebooks. In order to reach the BNC, this study utilized Sketch Engine (<https://www.sketchengine.eu/>) (Kilgariff et al., 2014). The number of the words in the BNC was 96,052,598, and the BNC was tagged using English Constituent Likelihood Automatic Word-tagging System (CLAWS), which was produced by University Centre for Computer Corpus Research on Language at Lancaster University. The BNC in Sketch Engine included written and spoken parts ranging from newspapers to informal conversations. It seemed that the BNC and the coursebooks had similar characteristics. For instance, the coursebooks consisted of various spoken genres, written texts as the BNC did; furthermore, the coursebooks included activities for the EFL learners on a

range of topics such as interviews and letters. Therefore, it was possible to see the authenticity in the coursebooks with regard to the use of complement ‘-ing’ clause when they were compared to the BNC.

This study addressed the frequency of complement ‘-ing’ clauses; however, complement ‘-ing’ clauses occurred in various positions (Biber et al., 2021). Therefore, it was critical to state that even though this study was about complement ‘-ing’ clauses, “*verb + ‘-ing’ clause*” and “*verb + noun phrase + ‘-ing’ clause*” patterns suggested by Biber et al. (2021, p. 732) were focused on. It was also important to note that corpus-based studies were “much more than bean counting” (Biber & Conrad, 2001, p. 331), and corpus-based studies might have various roles, such as indicating semantic characteristics in a discourse. This study was pedagogical and tried to see the frequency of the semantic domains of structural patterns of complement ‘-ing’ clauses suggested by Biber et al. (2021) in the EFL coursebooks in the high schools. The semantic domains of verbs in this study were *verbs of aspect or manner*, *communication/speech act verbs*, *cognition verbs*, *perception verbs*, *verbs of affective stance*, *verbs of description*, *verbs of effort*, *facilitation*, *or hindrance*, *verbs of (dis)agreement or (dis)approval*, *verbs of avoidance and obligation*, *verbs of offense*, *punishment*, *or apology*, and *verbs of required action* (Biber et al., 2021). In order to achieve the results, these research questions were brought forward:

1. Is there any statistically significant difference between the coursebooks used in the EFL classrooms in Turkey and the BNC in the use of complement ‘-ing’ clauses?
2. Is there any statistically significant difference between the coursebooks used in the EFL classrooms in Turkey and the BNC in the semantic domains of complement ‘-ing’ clause?

In an attempt to explore complement ‘-ing’ clauses and their semantic domains, “*verb + ‘-ing’ clause*” and “*verb + noun phrase + ‘-ing’ clause*” patterns (Biber et al., 2021, p. 732) were employed. To understand the patterns, it was significant to define the “noun phrase” in the pattern and to see the examples provided by Biber et al. (2021). For instance, “...*see a geek walking*...”, “...*find me sitting*...”, “...*find herself gazing*...”, “...*mind my saying*...”, “...*conceive of somebody getting*...” could be illustrated in their study (pp. 732-743). Therefore, in the current study, a noun phrase might include an article (a, the, etc.), a possessive determiner (my, your, etc.) and a general determiner (these, some, etc.). Furthermore, the noun might be a possessive determiner and a pronoun (me, you, etc.). After defined, the patterns were explored in the corpora. In the

corpus constructed by using the coursebooks, these patterns were found manually since Key Word in Context (KWIC) software program did not support tagging. Nevertheless, in the British National Corpus (BNC), Corpus Query Language (CQL) was employed. CQL was provided by Sketch Engine (<https://www.sketchengine.eu/>) (Kilgariff et al., 2014). One of the CQL formulae in this study was Formula 1.

Formula 1

[lemma= "like" & tag= "V.*"] [tag= "V.G"]

This formula made it possible to see “*like* + ‘-ing’ clause” pattern in the BNC. Lemma showed all the forms of the verb, such as “*like*” and “*likes*”. Additionally, a word could have different tags. The word “*like*” could be in different parts of speech, including verb and preposition, nonetheless, “*like*” was a verb in this study. Verbs were symbolized as “V.*” in the BNC, tagged by CLAWS in Sketch Engine. “V.G” symbolized all the verbs taking “*ing*” ending. Therefore, when this formula was typed on the CQL line, Figure 1 was seen as a result.

Figure 1

A Screenshot Showing “like + ‘-ing’ clause” Pattern

	Details	Left context	KWIC	Right context
1	① Social science	enjoyed being with Gordon Jackson so much.	liked hearing	about their families, although he never was part of that.
2	① Social science	wouldn't even stay with George Borwick.	like staying	in anyone else's home.
3	① Social science	battalion, crying for his Mutter.	like wearing	uniforms in films, but wore them with aplomb.
4	① Social science	re number when we left.	like talking	about Orton, although he would publicly protest for years
5	① Social science	didn't like to talk about money any more than he used to	like spending	it.
6	① Unknown	.	like asking	for that though.
7	① Unknown	that really good book.	like looking	through it, but can I just look through for you and learn it f
8	① World affairs	for it.	like leaving	the WAAF.
9	① Imaginative	>His dark glance remained on Sara.	like riding	," he said.
10	① Imaginative	egular correspondent," Matthew laughed.	likes expressing	herself on paper but she hasn't so far, mentioned the date
11	① Unknown	s very very quick.	likes working	for and myself and she likes her own sphere of influence i
12	① Imaginative	Jed, 'when I agree to do something, I do it.	like taking	something on and then failing to deliver.
13	① Imaginative	two grown-ups lying so closely together.	like kissing	Aunt Laura?" the little girl asked her uncle.
14	① Imaginative	'uise...	like having	to leave everything to Steve.

Note. V.*= Verbs

V.G= Verbs taking “*ing*” ending

The Formula 2 was employed for the patterns with a noun phrase. It was clear that the first part of the Corpus Query Language (CQL) formula consisting of the verbs

and the last part of it containing the verbs taking ‘-ing’ was similar to Formula 1. The lemma of the verbs and the complement ‘-ing’ clauses were sought in both formulae in the corpora. However, since Formula 2 consisted of a noun phrase, it included more parts than Formula 1.

Formula 2

[lemma= “start” & tag= “V.*”] [tag= “AT0|DPS|DT0”] ? [tag= “DPS|PN.|N.*”]
[tag= “V.G”]

Formula 2 indicated that after the verb “start”, a word tagged as an article (AT0) or a possessive determiner (DPS) or general determiner (DT0) might occur. Between the tags, there was a sign “|”, which symbolizes “or” in the CQL. The question mark sign “?” pointed that it was optional to find articles, possessive determiners or general determiners. The other part demonstrated that possessive determiners (DPS) or pronouns (PN.) or nouns (N.*) could occur before the verb with “ing”. Figure 2 illustrated the screen when this formula was employed.

Figure 2

A Screenshot Showing “start + noun phrase + ‘-ing’ clause”

CONCORDANCE British National Corpus (BNC), tagged by CLAWS

CQL [lemma="start" & tag="V.*"] [tag="AT0[DPS]DT0"] [tag="V.G"] • 153
1.36 per million tokens • 0.00014%

	Details	Left context	KWIC	Right context
1	Unknown	<s>Er, let's remember that it is a study that is, to	start us talking	, and I'm sure we'll have no difficulty in finding sc
2	Unknown	document that will certainly start you er you know	start the ball rolling	</s><s>Yeah.</s><s>When you arrive at the as
3	Natural & pure ...	very young bony flatfish.</s><s>A young flatfish	starts life swimming	near the surface, and it is symmetrical and vertic
4	Arts	: Of course, George was the obvious person to	start the wheels turning	</s><s>But Ben was already planning a childre
5	Unknown	a interesting I suspect.</s><s>Anybody want to	start the ball rolling	</s><s>erm, it's how confident you are in yourse
6	Social science	> no point in leaving a writ unserved: it does not	start interest accruing	; it does not do anything but temporarily interrup
7	Commerce & fina...	cier's advisers.</s><s>It is the offer letter which	starts the process moving	</s><s>There are three areas which need to be
8	Social science	s does not apply to repeated publications (each	starts the clock running	again), or to children or other people under a leg
9	Unknown	m, we should make definite erm, approaches to	start the ball rolling	in this preventative effect, because I think we're
10	Imaginative	riminating, but the sheer tension of waiting for it	started her head thumping	</s><s>At last it was over and Lori was getting
11	Imaginative	intention of following her.</s><s>The discovery	started her crying	in earnest, which meant a stop in a lay-by for a v
12	Imaginative	it was a surprising amount from a man who had	started the day denying	everything.</s><s>Both ways sounded bad to A
13	Arts	er after completing 41 years service.</s><s>He	started his career working	as a maltster at the Paddock maltings at Gainsb
14	Imaginative	mpled in his hand; all that coughing had clearly	started his nose bleeding	</s><s>You don't think this is just for him, do y

Note. V.*= Verbs

V.G= Verbs taking “ing” ending

AT0= Article

DPS= Possessive Determiner

DT0= General Determiner

PN.= Pronouns

N.*= Nouns

The other formula was determined to focus on more complex patterns, such as “be interested in ‘-ing’ clause”. In Formula 3, as well as the lemma of the verb “be”, the lexical items “interested”, “in” and the verbs with “ing” ending were included. It was noteworthy that Formula 3 helped the lemma of the verb, the words “interested” and “in”, complement ‘-ing’ clause be found in the BNC.

Formula 3

[lemma= “be”] [word= “interested”] “in” [tag= “V.G”]

The results in Figure 3 were noticed when Formula 3 was put into practice. In Figure 3, the verb “be” could be observed in different forms. In addition to that, the lexical elements “interested” and “in” were clearly noticed without any changes in their forms in Figure 3. The frequency of the pattern and a number of examples of complement ‘-ing’ clause could be observed in Figure 3.

Figure 3

A Screenshot from Sketch Engine Showing “be + interested in + ‘-ing’ clause” Pattern

CONCORDANCE British National Corpus (BNC), tagged by CLAWS

CQL [lemma="be"][word="interested"][word="in"] [tag="V.G"] • 533
4.75 per million tokens • 0.00048%

☐ Details ☐ Left context ☐ KWIC ☐ Right context

1	☐ Social science	re to hear from any other Somervillians who would	be interested in supporting	this work' </s><s>Virginia Luling spent five months
2	☐ Social science	ribes as an interesting mixture. </s><s>She would	be interested in hearing	from other Somervillians in advertising </s><s>Rac
3	☐ Applied science	nan economy. </s><s>However, an American bank	is interested in developing	the project in the third world, as the engine will also
4	☐ Unknown	ake maybe ten or fifteen of you, but how many will	be interested in going	to the one in the summer in this lovely out-door the
5	☐ Unknown	if you're for instance dealing with a purchaser who	's interested in buying	around about December what was the system that
6	☐ Unknown	im </s><s>others in the area that they know might	be interested in having	the pre er prestige er prestige being in the booklet.
7	☐ Unknown	</s><s>I was sort of hoping any other people who	were interested in standing	for re-election might have come along to this Comr
8	☐ Unknown	our bottom line </s><s>I think companies certainly	are interested in creating	the right impression, in in fact in creating the right €
9	☐ Imaginative	nto the passenger seat. </s><s>When had he ever	been interested in hearing	her side of things? </s><s>He slammed the door st
10	☐ Applied science	me. </s><s>A keen player of games at school, he	was interested in finding	out what local facilities offered in terms of learning
11	☐ Unknown	er the direction of Peter who cooks you may if you	're interested in cooking	you've probably read books by Peter. </s><s>Yes
12	☐ Unknown	e second of February, Wednesday, if anyone here	is interested in coming	they only had about two people attend from this vill
13	☐ Unknown	we would like to know erm whether erm we would	be interested in attending	, and how many people would wish, he he has ear
14	☐ Unknown	's, commencing at half past seven, so er if anyone	's interested in attending	that? </s><s>Are you interested John? </s><s>This

Note. V.G= Verbs taking “ing” ending

After this process, in order to understand if there was an overuse or an underuse in the coursebooks, the normalized frequency was calculated. The normalized frequency calculation that was revealed in Biber et al.’s study (1998) was employed in this present study. This calculation made it possible to view the normalized frequency of the lexicogrammatical elements although the corpora had different word counts. In order to find the normalized frequency counts, raw frequency counts were divided by the number of words in the corpus, and the result was multiplied by a basis number, such as 1,000. Therefore, it was possible to observe the number of an item investigated per 1,000 words in the corpora. This study selected 1,000 words as a basis, and the number of instances was measured per 1,000 words as Köroğlu and Tüm (2017) did. The log-likelihood (LL) (<https://ucrel.lancs.ac.uk/llwizard.html>) calculations were also conducted to determine the possible overuse/underuse and whether there was a significantly difference between the corpora.

2.4. Log-likelihood (LL)

According to Sinclair (1991), a researcher conducting a corpus-based study needed to “know how often each different word form occurs in” the text examined (p. 30). Thus, as well as the frequency per 1,000 words, this study employed the log-

likelihood LL values in an effort to ascertain a possible overuse/underuse and a statistically significant difference between the corpora.

Suggested by Dunning (1993), the log-likelihood (LL) ratio, generally indicated as G^2 or LL, could be employed in lieu of Pearson's chi-square test (Gries, 2010; Rayson & Garside, 2000) in corpus-based studies. Pearson's chi-square test might not be reliable when a researcher compared a corpus with a larger one as the present study did. LL might be more reliable when the expected frequency was less than 5 and when the expected frequency of the elements with high frequency in the corpora was overestimated (Rayson & Garside, 2000). Moreover, Scott (1997) argued that the LL calculations were able to indicate the "unusual frequency" in the corpora (p. 236). Showing the probability of the frequency differences between the corpora, the LL calculations took the size of the corpora and the raw frequency in the corpora into account. The frequency of a single word or a pattern in a corpus was called observed value (Rayson & Garside, 2000). Expected value, nevertheless, was the expected frequency which any instruments did not affect but chance or coincidence. Since the difference between the corpora could become owing to a chance, the expected value needed to be calculated by the LL calculator (<https://ucrel.lancs.ac.uk/llwizard.html>). The difference between the observed value and the expected value might be great, and accordingly, it could be interpreted that there was little chance or coincidence in the result. That is, a statistically significant result was achieved. The LL calculations provided the results that indicated the statistically significant difference between the frequencies of the words or the patterns examined in the corpora. In other words, the probability of the frequency differences in the corpora was less than 5%, and the result was 95% certain. In the LL calculator, the overused or underused frequencies were revealed through the plus (+) and minus (-) signs respectively. In conclusion, LL could provide a statistical framework to find out whether the differences between the frequencies of the recurrent patterns in the corpora were statistically significant or not.

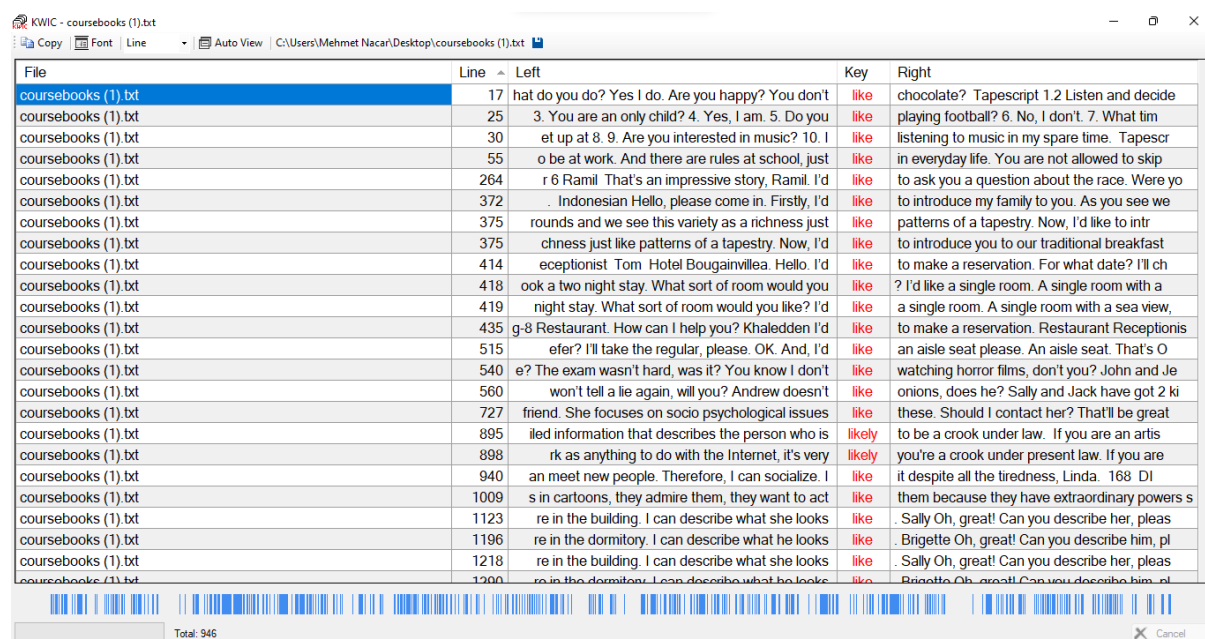
2.5. Key Word in Context (KWIC)

A concordance software was important in compiling and analyzing a corpus due to the fact that it helped teachers, learners and researchers to observe concordance lines in the corpus. In this study, Key Word in Context (KWIC) software, developed by Tsukamoto (2002), was utilized. By using the menu in the software, it was possible to observe and analyze wordlists, collocations and concordances of the corpus which

consisted of the coursebooks. Supporting various formats and codes ranging from text files to COCOA, which was a format for Helsinki Corpus, KWIC made it possible to examine a corpus effectively. In this study, the coursebooks were turned into a plain text format to use KWIC software. The complement ‘-ing’ clause patterns were searched manually without using any Corpus Query Language as shown in Figure 5 since KWIC did not support lemmatization and part of speech tagging.

Figure 4

A Screenshot from KWIC Software Showing “like”



File	Line	Left	Key	Right
coursebooks (1).txt	17	hat do you do? Yes I do. Are you happy? You don't	like	chocolate? Tapescript 1.2 Listen and decide
coursebooks (1).txt	25	3. You are an only child? 4. Yes, I am. 5. Do you	like	playing football? 6. No, I don't. 7. What tim
coursebooks (1).txt	30	et up at 8. 9. Are you interested in music? 10. I	like	listening to music in my spare time. Tapescr
coursebooks (1).txt	55	o be at work. And there are rules at school, just	like	in everyday life. You are not allowed to skip
coursebooks (1).txt	264	r 6 Ramil That's an impressive story, Ramil. I'd	like	to ask you a question about the race. Were yo
coursebooks (1).txt	372	. Indonesian Hello, please come in. Firstly, I'd	like	to introduce my family to you. As you see we
coursebooks (1).txt	375	rounds and we see this variety as a richness just	like	patterns of a tapestry. Now, I'd like to intr
coursebooks (1).txt	375	chness just like patterns of a tapestry. Now, I'd	like	to introduce you to our traditional breakfast
coursebooks (1).txt	414	ceptionist Tom Hotel Bougainvillea. Hello. I'd	like	to make a reservation. For what date? I'll ch
coursebooks (1).txt	418	ook a two night stay. What sort of room would you	like	? I'd like a single room. A single room with a
coursebooks (1).txt	419	night stay. What sort of room would you like? I'd	like	a single room. A single room with a sea view,
coursebooks (1).txt	435	g-8 Restaurant. How can I help you? Khaledden I'd	like	to make a reservation. Restaurant Receptionis
coursebooks (1).txt	515	eder? I'll take the regular, please. OK. And, I'd	like	an aisle seat please. An aisle seat. That's O
coursebooks (1).txt	540	e? The exam wasn't hard, was it? You know I don't	like	watching horror films, don't you? John and Je
coursebooks (1).txt	560	won't tell a lie again, will you? Andrew doesn't	like	onions, does he? Sally and Jack have got 2 ki
coursebooks (1).txt	727	friend. She focuses on socio psychological issues	like	these. Should I contact her? That'll be great
coursebooks (1).txt	895	iled information that describes the person who is	likely	to be a crook under law. If you are an artis
coursebooks (1).txt	898	rk as anything to do with the Internet, it's very	likely	you're a crook under present law. If you are
coursebooks (1).txt	940	an meet new people. Therefore, I can socialize. I	like	it despite all the tiredness, Linda. 168 DI
coursebooks (1).txt	1009	s in cartoons, they admire them, they want to act	like	them because they have extraordinary powers s
coursebooks (1).txt	1123	re in the building. I can describe what she looks	like	. Sally Oh, great! Can you describe her, pleas
coursebooks (1).txt	1196	re in the dormitory. I can describe what he looks	like	. Brigitte Oh, great! Can you describe him, pl
coursebooks (1).txt	1218	re in the building. I can describe what she looks	like	. Sally Oh, great! Can you describe her, pleas
coursebooks (1).txt	1200	re in the dormitory. I can describe what he looks	like	. Brigitte Oh, great! Can you describe him, pl

In conclusion, this corpus-based study that employed KWIC software, Sketch Engine, the frequency per 1,000 words and log-likelihood was a coursebook analysis. This study compared the EFL coursebooks in the high schools in Turkey with the British National Corpus (BNC). The aim of the study was to find a statistically significant difference between the corpora and to explore a possible overuse or underuse of complement ‘-ing’ clauses in the coursebooks.

3. FINDINGS

3.1. Introduction

This chapter aimed to present the analysis of complement ‘-ing’ clauses in two different corpora, which were the corpus compiled by using the English as a Foreign language (EFL) coursebooks used in Turkey and the British National Corpus (BNC). This study tried to describe the frequency, the overuse or underuse of complement ‘-ing’ clauses in the coursebooks. The patterns “*verb + ‘-ing’ clause*” and “*verb + noun phrase + ‘-ing’ clause*” (Biber et al. 2021, p. 732) were employed in an attempt to explore the frequency, the overuse/underuse of complement ‘-ing’ clauses. With the quantitative and descriptive research methodology, the tables displaying the frequency and the log-likelihood value of the semantic domains of complement ‘-ing’ clauses indicated by Biber et al. (2021) were presented in the analysis process. Moreover, the extracts from the coursebooks were illustrated to observe the use of the complement ‘-ing’ clause patterns.

3.2. The Frequency Analysis of Verbs of Aspect or Manner in the Coursebooks and the BNC

As suggested by Biber et al. (2021), the semantic domains of complement ‘-ing’ clauses were conveyed through the verbs. One of the semantic domains was aspect or manner, and the verbs, such as “*begin*” and “*come*”, were the common ones. It was possible that verbs of aspect or manner indicated “an activity in progress” (Biber et al. 2021, p. 736). Table 1 showed the size of the corpora used in this study, the total frequency of verbs of aspect or manner which controlled complement ‘-ing’ clauses, the frequency per 1,000 words in the coursebooks and the BNC and the log-likelihood score in order to better understand the overuse.

Table 1

The Frequency Analysis of the Patterns of Verbs of Aspect or Manner in the Coursebooks and the BNC

	Corpus Size	PVAM	n per 1,000	Frequency (%)	LL
Coursebooks	345,438	241	1	0.01	+96.97*
BNC	96,052,598	32915	0	0.00	

Note. n= frequency of patterns of verbs of aspect or manner

Frequency= percentage of PVAMs in total of words in groups

+ indicated overuse of verbs of aspect or manner in the coursebooks relative to the BNC

- indicated underuse of verbs of aspect or manner in the coursebooks relative to the BNC

It was noticeable in Table 1 that the number of words in the corpus consisting of the coursebooks was 345,438, however, the BNC included 96,052,598 words. The total frequency of the verb patterns which indicated aspect or manner in complement ‘-ing’ clauses in the coursebooks was 241. In the BNC, nevertheless, the total frequency was more, and it was 32915. The frequency per 1,000 of the verb patterns in the BNC was 0 albeit it was 1 in the coursebooks. This difference could also be seen in the frequency in 100 words. In Table 1, when compared to the BNC, the frequency of the verb patterns occurred more in the coursebooks (0.01 in the coursebooks vs. 0.00 in the BNC). The LL value was +96.97. It was understood that verbs of aspect or manner were overused in the coursebooks when compared to the BNC. Also, there was a statistically significant difference between the coursebooks and the BNC in the use of the patterns of verbs of aspect or manner. Even though the LL value revealed the overuse, some of the patterns, such as “*cease + ‘-ing’ clause*”, “*commence + ‘-ing’ clause*”, “*start + noun phrase + ‘-ing’ clause*” and “*postpone + noun phrase + ‘-ing’ clause*” did not occur in the coursebooks. The extract in Example 1 was from the listening transcripts. LT was the abbreviation of the listening transcripts, and the number referred to the concordance line that the pattern occurred in.

Example 1

“... Then, I **went on training** hard and found great support...” (LT_23)

Example 1 provided a part of a concordance line illustrating the pattern “*go (around / on) + ‘-ing’ clause*”. It was also important to note that this pattern was one of

the most recurrent ones in the coursebooks in terms of the semantic domains of verbs of aspect or manner. The following section provided the frequency analysis of communication/speech act verbs.

3.3. The Frequency Analysis of Communication/Speech Act Verbs in the Coursebooks and the BNC

Complement ‘-ing’ clauses could be controlled by communication and speech act verbs, such as “*acknowledge*”, “*suggest*”, “*recommend*” and “*talk about*”, which gave the meaning of reported statements in a discourse (Biber et al., 2021). Table 2 illustrated the number of words in the corpora, the total frequency, the frequency per 1,000 words of complement ‘-ing’ clauses controlled by communication and speech act verbs. The LL score was also indicated in Table 2.

Table 2

The Frequency Analysis of the Patterns of Communication/Speech Act Verbs in the Coursebooks and the BNC

	Corpus Size	PCSAV	n per 1,000	Frequency (%)	LL
Coursebooks	345,438	24	0	0.00	+24.42*
BNC	96,052,598	1980	0	0.00	

Note. n= frequency of patterns of communication/speech act verbs

Frequency= percentage of PCSAVs in total of words in groups

+ indicated overuse of verbs of aspect or manner in the coursebooks relative to the BNC

- indicated underuse of verbs of aspect or manner in the coursebooks relative to the BNC

As illustrated in Table 2, the corpus of the coursebooks included the 345,438 words, nonetheless, the BNC had 96,052,598 words. Although the frequency of complement ‘-ing’ clauses controlled by communication and speech act verbs in the coursebooks was less than the one in the BNC (respectively 24 and 1980), the frequencies in the corpora in 100 words were equal (Frequency= 0). The LL value was +24.42, indicating the overuse of complement ‘-ing’ clauses controlled by communication/speech act verbs in the coursebooks. Although the LL score revealed the overuse, there were the patterns with no occurrences in the coursebooks, including “*recommend* + ‘-ing’ clause” and “*complain about / of* + ‘-ing’ clause”. It was also noteworthy that there was a significant difference between the coursebooks and the BNC regarding the use of the

patterns of communication/speech act verbs. Example 2, from the workbooks, showed a sentence in a concordance line. The abbreviation of the workbooks was indicated as WB, and the number showed the sequence of the concordance line from which the sentence was extracted.

Example 2

“...What does the doctor **suggest doing**? ...” (WB_38)

In Example 2, the pattern “*suggest* + ‘-ing’ clause” was exemplified in the coursebooks. This pattern was used in a variety of activities in the coursebooks, for example it occurred in the reading passages and completing the sentences. Therefore, it could be seen that the Turkish learners of English as a foreign language were able to be exposed to the pattern of complement ‘-ing’ clause. The next part presented the frequency analysis of cognition verbs.

3.4. The Frequency Analysis of Cognition Verbs in the Coursebooks and the BNC

There were a wide variety of semantic domains in complement ‘-ing’ clauses, one of which was conveyed through cognition verbs, such as “*remember*”, “*believe in*” and “*decide about*” (Biber et al., 2021). In a discourse, the role of these verbs was to express mental positions of either interlocutors or others (Biber et al., 2021). Table 3 indicated the size of the corpora, the total frequency of the verb patterns, the frequency per 1,000 words and the LL score of complement ‘-ing’ clauses controlled by cognition verbs in the coursebooks and the BNC.

Table 3

The Frequency Analysis of the Patterns of Cognition Verbs in the Coursebooks and the BNC

	Corpus Size	PCV	n per 1,000	Frequency (%)	LL
Coursebooks	345,438	37	0	0.00	+1.32
BNC	96,052,598	8460	0	0.00	

Note. n= frequency of patterns of cognition verbs

Frequency= percentage of PCVs in total of words in groups

+ indicated overuse of verbs of aspect or manner in the coursebooks relative to the BNC

- indicated underuse of verbs of aspect or manner in the coursebooks relative to the BNC

As observed in Table 3, while the coursebooks consisted of 345,438 words, the number of words in the BNC was 96,052,598. While the frequency of complement ‘-ing’ clauses controlled by cognition verbs in the coursebooks, the BNC consisted of more verb patterns (37 in the coursebooks vs. 8460 in the BNC). Both in the BNC and in the coursebooks, the frequencies per 1,000 words and the frequencies in 100 words were equal, being 0 and 0.00 respectively. It could be inferred from the LL score, which was +1.32, that there was an overuse of cognition verbs of the complement ‘-ing’ clause patterns in the coursebooks when compared to the BNC. Having said that, “*believe in + ‘-ing’ clause*” and “*consider + ‘-ing’ clause*” were the patterns which did not appear in the coursebooks. Example 3, received from the listening transcripts, displayed the pattern “*think about / of + ‘-ing’ clause*”. The coursebooks’ listening transcripts was abbreviated as LT, and the number indicated the concordance line of the pattern.

Example 3

“...Have you ever **thought of cooking** as a hobby that makes money? ...”
(LT_14)

Example 3 was one of the most frequent patterns from the semantic domain of cognition verbs in complement ‘-ing’ clauses. It was important to note that both the patterns with the prepositions “*about*” and “*of*” could be seen in the coursebooks. The reason that “*think of*” was selected as an example was that in the coursebooks, this pattern was employed more frequently than the pattern of “*think about*”. The frequency analysis of perception verbs was demonstrated in the next part.

3.5. The Frequency Analysis of Perception Verbs in the Coursebooks and the BNC

Perception verbs, such as “*hear*”, “*see*” and “*dream of*” provided another semantic domain in complement ‘-ing’ clauses, and these verbs referred to the sense perceptions in a discourse (Biber et al., 2021). Table 4 illustrated the corpora size in this study, the total frequency of the patterns, the frequency per 1,000 words of the semantic domain of perception verbs and the LL value in the use of complement ‘-ing’ clauses.

Table 4

The Frequency Analysis of the Patterns of Perceptions Verbs in the Coursebooks and the BNC

	Corpus Size	PPV	n per 1,000	Frequency (%)	LL
Coursebooks	345,438	39	0	0.00	-3.11
BNC	96,052,598	14205	0	0.00	

Note. n= frequency of patterns of perception verbs

Frequency= percentage of PPVs in total of words in groups

+ indicated overuse of verbs of aspect or manner in the coursebooks relative to the BNC

- indicated underuse of verbs of aspect or manner in the coursebooks relative to the BNC

As shown in Table 4, there were 345,438 words in the coursebooks although the BNC comprised 96,052,598 words. Perception verbs in complement ‘-ing’ clauses were utilized less in the coursebooks. However, the frequency per 1,000 of the verb patterns in the coursebooks and the BNC were the same. The frequencies in 100 words in the use of perception verbs of complement ‘-ing’ clauses were also equal. The LL score was -3.11 and there was an underuse of the patterns of perceptions verbs in the coursebooks. Additionally, certain perception verbs controlling complement ‘-ing’ clauses, including “*envisage*” and “*smell*”, were not found in the coursebooks. Example 4, which was from the listening transcripts, gave an example of the use of the pattern of perception verbs. LT referred to the abbreviation of the listening transcripts, and the number indicated the sequence of the concordance line of the pattern.

Example 4

“...I **saw** Anna **standing** by our old house where we had lived for...” (LT_211)

Example 4 provided a sentence exemplifying the pattern “*see + noun phrase + ‘-ing’ clause*”, which was one of the most frequent patterns in the coursebooks. It was also noteworthy to highlight that, according to Biber et al. (2021), this pattern was frequently utilized by native speakers in the Longman Spoken and Written English (LSWE) Corpus. The frequency analysis of verbs of affective stance was presented in the following part.

3.6. The Frequency Analysis of Verbs of Affective Stance in the Coursebooks and the BNC

The semantic domain of verbs of affective stance could convey the meanings of positive and negative state, and “like”, “hate”, “love” and “prefer” were the lexical elements used in this domain (Biber et al., 2021). Table 5 illustrated the number of words in the corpora, which were the BNC and the coursebooks, the total frequency and the frequency per 1,000 words of complement ‘-ing’ clauses controlled by verbs of affective stance in the coursebooks and the BNC. The LL score was also noticed in Table 5 to reveal the overuse in the coursebooks.

Table 5

The Frequency Analysis of the Patterns of Verbs of Affective Stance in the Coursebooks and the BNC

	Corpus Size	PVAS	n per 1,000	Frequency (%)	LL
Coursebooks	345,438	338	1	0.01	+1012.57*
BNC	96,052,598	8306	0	0.00	

Note. n= frequency of patterns of verbs of affective stance

Frequency= percentage of PVASs in total of words in groups

+ indicated overuse of verbs of aspect or manner in the coursebooks relative to the BNC

- indicated underuse of verbs of aspect or manner in the coursebooks relative to the BNC

As seen in Table 5, even though the coursebooks contained 345,438 words, the number of words in the BNC was 96,052,598. The frequency of verbs of affective stance used in the coursebooks was 338. In the BNC, the frequency of verbs of affective stance was more than the frequency in the coursebooks, and it was 8306. However, the frequency in 1,000 words in the BNC was less than the one in the coursebooks (0 in the BNC vs. 1 in the coursebooks). Although it seemed that there was an overuse in the coursebooks, “detest”, “deplore” “dread” and “resent”, which were in the class of verbs of affective stance, did not occur in the coursebooks. Furthermore, it could be noticed in Table 5 that there was a statistically significant difference in the use of the patterns of verbs of affective stance between the coursebooks and the BNC. Example 5, obtained from the student’s books was a sentence displaying a pattern of verbs of affective stance. The abbreviation of the student’s books was shown as SB, and the number referred to the concordance line which the pattern was found in.

Example 5

“...I usually **like being** on my own...” (SB_36)

Example 5 conveyed the positive stance and exemplified the most recurrent pattern in the coursebooks. This extract illustrated the pattern which was utilized frequently in various levels though this pattern was not the most recurrent one employed by native speakers in the Longman Spoken and Written English (LSWE) Corpus (Biber et al., 2021). The frequency analysis of verbs of description was discussed in the next part.

3.7. The Frequency Analysis of Verbs of Description in the Coursebooks and the BNC

Verbs of description was yet another semantic class in complement ‘-ing’ clauses, and the verbs, including “*be used for*” and “*include*”, presented the meaning of description (Biber et al., 2021). Table 6 indicated the size of the coursebooks and the BNC, the corpora utilized in this study, the total frequency of the patterns of verbs of description, the frequency per 1,000 words in the BNC and the coursebooks, and the LL analysis.

Table 6

The Frequency Analysis of the Patterns of Verbs of Description in the Coursebooks and the BNC

	Corpus Size	PVD	n per 1,000	Frequency (%)	LL
Coursebooks	345,438	34	0	0.00	-0.74
BNC	96,052,598	10914	0	0.00	

Note. n= frequency of patterns of verbs of description

Frequency= percentage of PVDs in total of words in groups

+ indicated overuse of verbs of aspect or manner in the coursebooks relative to the BNC

- indicated underuse of verbs of aspect or manner in the coursebooks relative to the BNC

In Table 6, it could be seen that the number of words was 345,438 in the coursebooks, however, there were 96,052,598 words in the BNC. The frequency of verbs of description in the coursebooks was 34. In spite of that, the frequency of these patterns in the BNC was 10914. The frequency per 1,000 and the frequencies in 100 words were

inter se equal. The LL value was -0.74. It could be concluded from the LL score that there was an underuse of verbs of description in the coursebooks compared to the BNC. Example 6 presented a sentence displaying the use of a verb of description in the student's books. SB indicated the student's books, and the sequence of the concordance line of the pattern was shown as the number.

Example 6

"...**Describe** your friends **using** the words in..." (SB_172)

Example 6 provided an excerpt displaying the pattern "*describe + noun phrase + '-ing' clause*" in the coursebooks. It was extracted from the title of an exercise in the coursebooks. It was important to highlight that although the teacher was expected to explain what to do in the activity, the learners were obviously exposed to the language in the instructions in the coursebooks while doing the activity. Therefore, the EFL learners could notice the pattern and were exposed to a complement '*ing*' clause. The following part discussed the frequency analysis of verbs of effort, facilitation, or hindrance.

3.8. The Frequency Analysis of Verbs of Effort, Facilitation, or Hindrance in the Coursebooks and the BNC

The semantic domain of verbs of effort, facilitation, or hindrance included such verbs as "*try*", "*prevent*" and "*can't help*" (Biber et al., 2021). The verbs in this semantic class could convey the sense of assisting, supporting or discouraging. Table 7 demonstrated the corpora size in the study, the total frequency of the complement '*ing*' clause controlled by verbs of effort, facilitation, or hindrance verb patterns, the frequency per 1,000 words of the verb patterns as well as the LL value.

Table 7

The Frequency Analysis of the Patterns of Verbs of Effort, Facilitation, or Hindrance in the Coursebooks and the BNC

	Corpus Size	PVEFH	n per 1,000	Frequency (%)	LL
Coursebooks	345,438	46	0	0.00	-1.44
BNC	96,052,598	15191	0	0.00	

Note. n= frequency of patterns of verbs of effort, facilitation, or hindrance

Frequency= percentage of PVEFHs in total of words in groups

+ indicated overuse of verbs of aspect or manner in the coursebooks relative to the BNC

- indicated underuse of verbs of aspect or manner in the coursebooks relative to the BNC

As indicated in Table 7, the coursebooks included 345,438 words while 96,052,598 words were in the BNC. The frequency of verbs of effort, facilitation, or hindrance controlling complement ‘-ing’ clauses was 46. Despite that, in the BNC, there were 15191 verbs of effort, facilitation, or hindrance in the patterns of complement ‘-ing’ clauses. The frequencies and the frequencies in 1,000 words of them in the BNC and the coursebooks were inter se equal (Frequency in 100 words=0.00 and frequency in 1,000 words= 0). As clearly understood from the LL value (-1.44), there was an underuse of the patterns of verbs of effort, facilitation, or hindrance in the coursebooks. Example 7, selected from the workbooks, illustrated one of the most recurrent patterns. The workbooks were abbreviated as WB, and the number referred to the concordance line that the pattern occurred in.

Example 7

“...**Try having** a warm shower before going to bed...” (WB_50)

Providing a sentence in a concordance line from the coursebooks, Example 7 illustrated the pattern “try + ‘-ing’ clause”. Whereas there were the verbs in this semantic class, including “try”, “keep” and “prevent”, in the coursebooks, the verb patterns, containing “facilitate” and “hinder” did not appear in them. The following chapter discussed the frequency analysis of verbs of effort, facilitation, or hindrance.

3.9. The Frequency Analysis of Verbs of (Dis)Agreement or (Dis)Approval in the Coursebooks and the BNC

The semantic domain of verbs of (dis)agreement or (dis)approval consisted of the verbs, including “*accept*”, “*approve of*” and “*permit*”, conveying the meaning of the assessment of a situation (Biber et al., 2021). Table 8 displayed the number of the words in the corpora, the total frequency, the frequency per 1,000 words of verbs of (dis)agreement or (dis)approval in the patterns of complement ‘-ing’ clauses in the coursebooks and the LL analysis.

Table 8

The Frequency Analysis of the Patterns of Verbs of (Dis)Agreement or (Dis)Approval in the Coursebooks and the BNC

	Corpus Size	PVAA	n per 1,000	Frequency (%)	LL
Coursebooks	345,438	2	0	0.00	+0.04
BNC	96,052,598	483	0	0.00	

Note. n= frequency of patterns of verbs of (dis)agreement or (dis)approval

Frequency= percentage of PVAA in total of words in groups

+ indicated overuse of verbs of aspect or manner in the coursebooks relative to the BNC

- indicated underuse of verbs of aspect or manner in the coursebooks relative to the BNC

As observed in Table 8, though the corpus of the coursebooks contained 345,438 words, in the BNC, there were 96,052,598 words. While there were two verbs of (dis)agreement or (dis)approval in complement ‘-ing’ clauses in the coursebooks, the BNC included 483 ones. In the coursebooks and the BNC, the frequencies in 1,000 words and the frequencies per 100 of the verbs were inter se equal (Frequency per 1,000= 0; frequency per 100= 0.00). It could be noticed that there was an overuse in the coursebooks when they were compared to the BNC. Example 8, received from the student’s books provided a sentence illustrating the pattern “*allow (for) + ‘-ing’ clause*”. SB was assigned as the student’s books, and the number was used for the sequence of the concordance line of the pattern.

Example 8

“...It also **allows backtracking** to other main sections of the website...” (SB_31)

Although, in Example 8, “allow” was likely to have similar meaning of “permit”, the verb “permit” did not appear in the complement ‘-ing’ clause patterns in the coursebooks. Moreover, it was important to note that the complement ‘-ing’ clause patterns that were constituted by such verbs as “defer”, “deserve”, “agree to” and “endorse” did not occur in the coursebooks. The frequency analysis of verbs of avoidance and obligation was provided in the next part.

3.10. The Frequency Analysis of Verbs of Avoidance and Obligation in the Coursebooks and the BNC

The other one of the semantic domains of complement ‘-ing’ clauses was avoidance and obligation, and “avoid” and “necessitate” were the examples of the verbs that conveyed this semantic class (Biber et al., 2021). Table 9 illustrated the size of the corpora, the total frequency, the frequency per 1,000 words, and the LL value of verbs of avoidance and obligation in the patterns of complement ‘-ing’ clauses in the coursebooks and the BNC.

Table 9

The Frequency Analysis of the Patterns of Verbs of Avoidance and Obligation in the Coursebooks and the BNC

	Corpus Size	PVAO	n per 1,000	Frequency (%)	LL
Coursebooks	345,438	12	0	0.00	+0.11
BNC	96,052,598	3032	0	0.00	

Note. n= frequency of patterns of communication/speech act verbs

Frequency= percentage of PVAOs in total of words in groups

+ indicated overuse of verbs of aspect or manner in the coursebooks relative to the BNC

- indicated underuse of verbs of aspect or manner in the coursebooks relative to the BNC

In Table 9, the number of words in the coursebooks was 345,438 though there was 96,052,598 words in the BNC. The total frequency of the coursebooks was less than the one in the BNC (12 in the coursebooks vs. 3032 in the BNC). Nevertheless, the frequencies per 1,000 and the frequencies in 100 words were inter se equal (Frequency per 1,000= 0; frequency per 100= 0.00). It could be inferred from the LL value in Table 9 that there was an overuse (+0.11) of the patterns of verbs of avoidance and obligation in complement ‘-ing’ clauses in the coursebooks. Example 9 provided a sentence from

the student's books, showing the use of the pattern "*avoid* + '*-ing*' clause". SB was appointed as the student's books, and the number was used as the concordance line of the pattern.

Example 9

"...You should also **avoid drinking** bottled water as it has large environmental and..." (SB_5)

Example 9 showed the most recurrent pattern in this semantic domain, illustrating the sense of avoidance. Nonetheless, certain patterns of verbs of avoidance and obligation of complement '*-ing*' clauses, including "*necessitate*", "*neglect*" and "*resist*", did not occur in the coursebooks. The next part provided the frequency analysis of verbs of offense, punishment, or apology.

3.11. The Frequency Analysis of Verbs of Offense, Punishment, or Apology in the Coursebooks and the BNC

The patterns of verbs of offense, punishment, or apology, such as "*admit*", "*apologize for*" and "*forgive*", constructed yet another semantic domain of complement '*-ing*' clauses (Biber et al., 2021). Showing the corpus size, the total frequency of the patterns of verbs of offense, punishment, or apology and the frequency per 1,000 words of these patterns in the coursebooks and the BNC, Table 10 also presented the LL value.

Table 10

The Frequency Analysis of the Patterns of Verbs of Offense, Punishment, or Apology in the Coursebooks and the BNC

	Corpus Size	PVOPA	n per 1,000	Frequency (%)	LL
Coursebooks	345,438	4	0	0.00	-10.92*
BNC	96,052,598	4080	0	0.00	

Note. n= frequency of patterns of verbs of offense, punishment, or apology

Frequency= percentage of PVOPAs in total of words in groups

+ indicated overuse of verbs of aspect or manner in the coursebooks relative to the BNC

- indicated underuse of verbs of aspect or manner in the coursebooks relative to the BNC

In Table 10, the coursebooks included 345,438 words while the BNC had 96,052,598 words. It was noticeable that whereas there were four patterns of verbs of offense, punishment, or apology in the coursebooks, the BNC consisted of 4080 ones. The frequencies per 1,000 words and the frequencies in 100 words in the coursebooks and in the BNC were inter se equal. It was clearly observed that the patterns of verbs of offense, punishment, or apology were underused in the coursebooks when compared to the BNC. It could also be noticeable that there was a statistically significant difference between two corpora. Example 10, extracted from the workbooks, was a part of a sentence in the concordance lines. The workbooks were referred to as WB, and the number demonstrated the concordance line in which the pattern appeared.

Example 10

“...my brother **apologised for breaking** my heart...” (WB_3)

In Example 10, it was observed that the pattern “*apologize for + ‘-ing’ clause*” was employed in the coursebooks. Nevertheless, the patterns, including “*admit + ‘-ing’ clause*” and “*defend + ‘-ing’ clause*”, did not occur in the coursebooks. In the following part, the frequency analysis of verbs of required action was revealed.

3.12. The Frequency Analysis of Verbs of Required Action in the Coursebooks and the BNC

As suggested by Biber et al. (2021), there were three verbs in this semantic domain, which were “*need*”, “*require*” and “*want*”. Table 11 demonstrated the corpus size, the total frequency, and the frequency per 1,000 words of the patterns of verbs of required action both in the coursebooks and in the BNC. In an effort to indicate whether there was a statistically significant difference between the coursebooks and the BNC, the LL value was also provided in Table 11.

Table 11

The Frequency Analysis of the Patterns of Verbs of Required Action in the Coursebooks and the BNC

	Corpus Size	PVRA	n per 1,000	Frequency (%)	LL
Coursebooks	345,438	7	0	0.00	+0.00
BNC	96,052,598	1924	0	0.00	

Note. n= frequency of patterns of verbs of required action

Frequency= percentage of PVRAs in total of words in groups

+ indicated overuse of verbs of aspect or manner in the coursebooks relative to the BNC

- indicated underuse of verbs of aspect or manner in the coursebooks relative to the BNC

It could be seen in Table 11 that even though the coursebooks contained 345,438, the BNC consisted of 96,052,598 words. Additionally, Table 11 indicated that there was an overuse in the coursebooks when they were compared to the BNC in the use of the patterns of verbs of required action. The frequency of them was 7 in the coursebooks and 1924 in the BNC. Though the total frequencies were different, the frequencies per 1,000 words and the frequencies per 100 words were the same in the use of the patterns both in the coursebooks and in the BNC (Frequency per 1,000= 0; frequency per 100= 0.00). Example 11, received from the workbooks, extracted the most recurrent pattern in this semantic domain in the coursebooks. WB was the abbreviation of the workbooks, and the number referred to the concordance line that the pattern occurred in.

Example 11

“...You think that it **needs cleaning**...” (WB_228)

As seen in Example 11, the coursebooks presented a sentence which included a verb of required action which took complement ‘-ing’ clauses. The coursebooks provided the learners of English with at least one example of the patterns of verbs of required action. In the last part of this chapter, the frequency analysis of all of the semantic domains was discussed.

3.13. The Frequency Analysis of All of the Semantic Domains in the Coursebooks and the BNC

This study attempted to investigate the frequency of the semantic domains of complement ‘-ing’ clauses in the coursebooks and the BNC. The word counts in the corpora, the total frequency of all the semantic domains (Biber et al., 2021) in the coursebooks and the BNC, the frequency per 1,000 words and the LL value were illustrated in Table 12. Therefore, it was possible to provide an overall perspective with regard to the occurrences of the patterns of the semantic domains of complement ‘-ing’ clauses in the coursebooks.

Table 12

The Frequency Analysis of All the Patterns of Semantic Domains in the Coursebooks and the BNC

	Corpus Size	PTOTAL	n per 1,000	Frequency (%)	LL
Coursebooks	345,438	784	2	0.02	+359.05*
BNC	96,052,598	101490	1	0.01	

Note. n= frequency of all the patterns of the semantic domains

Frequency= percentage of PTOTALs in total of words in groups

+ indicated overuse of verbs of aspect or manner in the coursebooks relative to the BNC

- indicated underuse of verbs of aspect or manner in the coursebooks relative to the BNC

Illustrating the number of words in the coursebooks and the BNC (respectively 345,438 and 96,052,598), Table 12 indicated that even though the frequency of all of the patterns of the semantic domains of complement ‘-ing’ clauses was 784 in the coursebooks, the BNC included 101490 patterns of complement ‘-ing’ clauses. The frequency per 1,000 words of all the semantic domains in the coursebooks was 2. In the BNC, however, it was 1. This difference could also be observed in the frequency in 100 words. In Table 12, the LL value obviously demonstrated that there was an overuse in the coursebooks in the use of complement ‘-ing’ clauses, and there was a statistically significant difference between the coursebooks and the BNC. The patterns of the semantic domains of complement ‘-ing’ clauses were overused when compared to the BNC although all of the patterns were not found in the coursebooks. The next chapter discussed the interpretations and possible pedagogical implications of these findings.

4. DISCUSSION AND CONCLUSION

4.1. Introduction

This study provided a perspective regarding the frequency of the semantic domains of complement ‘-ing’ clauses (Biber et al., 2021) in the English as a foreign language (EFL) coursebooks administered in the high schools by the Ministry of National Education in Turkey. This study attempted to investigate the frequency, overuse or underuse of the patterns of complement ‘-ing’ clauses that were formed by the verbs of a wide variety of the semantic domains revealed by Biber et al. (2021). That is, the semantic domains were conveyed through the verb classes, which were: *verbs of aspect or manner, communication/speech act verbs, cognition verbs, perception verbs, verbs of affective stance, verbs of description, verbs of effort, facilitation, or hindrance, verbs of (dis)agreement or (dis)approval, verbs of avoidance and obligation, verbs of offense, punishment, or apology, and verbs of required action* (Biber et al., 2021). In an attempt to discover the frequency of these semantic domains in the coursebooks, this study employed a corpus-based analysis, one of the descriptive and quantitative methods. Additionally, the frequency in 100 words, the frequency per 1,000 words and the log-likelihood value (LL) were put into practice to see whether there was a statistically significant overuse or underuse of the verb patterns of complement ‘-ing’ clauses in the coursebooks. These coursebooks consisted of more than one book in each classroom level, such as a student’s book and a workbook. This study used student’s books, workbooks and listening transcripts by removing such sections as National Anthem, which were unrelated and irrelevant to the English language teaching (ELT) context. Key Word in Context (KWIC) (Tsukamoto, 2002) software was utilized in an effort to compile the corpus that included the coursebooks. The British National Corpus (BNC) was selected as a reference corpus and reached by means of Sketch Engine (Kilgariff et al., 2014). This chapter aimed to interpret the findings of this study by taking into consideration previous corpus-based analyses of the coursebooks and complement ‘-ing’ clauses. Furthermore, pedagogical implications of this current study in the EFL context and suggestions for further research were presented in this chapter.

4.2. Conclusion

This study attempted to investigate the frequency, overuse or underuse of the verb patterns in the semantic domains of complement ‘-ing’ clauses (Biber et al., 2021) in the

English as a foreign language (EFL) coursebooks used in Turkey. This study sought the answer of two research questions. The first research question of this study was whether there was any statistically significant difference between the coursebooks used in the EFL classrooms in Turkey and the BNC in terms of the use of complement ‘-ing’ clauses. This research question referred to not only the total frequency of complement ‘-ing’ clauses in the coursebooks and the British National Corpus (BNC) but also the statistically significant difference and the possible overuse or underuse between the corpora. The second research question was regarding the frequency of the semantic domains of complement ‘-ing’ clauses (Biber et al., 2021) and their comparison that showed the LL values, the possible overuse and underuse. The parts of the evaluation interpreted the findings of the current study.

4.2.1. Evaluation of the Verbs of Aspect or Manner Usage in the Coursebooks and the BNC

This study utilized the BNC as the reference corpus in an attempt to see the possible overuse or underuse of complement ‘-ing’ clauses in the coursebooks. The number of words in the BNC was greater than the coursebooks. Due to this difference, it could be observed that the total number of complement ‘-ing’ clauses was lower in the coursebooks. Considering the frequency analysis of the patterns of verbs of aspect or manner in the coursebooks and the BNC, it was observed that the patterns were overused in the coursebooks when they were compared to the BNC. In addition to the frequency in 1,000 words, the log-likelihood (LL) value indicated the overuse of verbs of aspect or manner. It was important to note that the coursebooks consisted of statistically more patterns which conveyed the meaning of an ongoing activity (Biber et al., 2021). This might cause the overuse of complement clauses in the outputs of English as a foreign language (EFL) learners. For instance, Tizón-Couto (2014), discussing the use of complement clauses in the native and the learner corpora, suggested that native speakers tended to utilize less complement clauses in their outputs when they were compared to the ones of the learners of English. Moreover, providing the statistically significant results as this study did, Tizón-Couto (2014) presented a framework regarding the use of complement clauses by EFL learners. It was noteworthy that the statistically significant difference between the coursebooks and the BNC affected the authenticity in the coursebooks. In order for EFL learners to be exposed to authentic language, corpus should be involved in the coursebooks (Alavi & Rajabpoor, 2015).

4.2.2. Evaluation of the Communication/Speech Act Verbs Usage in the Coursebooks and the BNC

Taking the corpus size into consideration, it was clear that the BNC had more lexical items than the coursebooks. The difference between the BNC and the coursebooks could also be seen in the total number of the patterns of communication/speech verbs. The coursebooks consisted of fewer patterns. However, the frequency analysis revealed that the frequencies in 100 words of the patterns in the BNC and the coursebooks were the same. Although the frequencies per 1,000 words in the use of the communication/speech act verbs' patterns were equal in the coursebooks and the BNC, the LL score revealed there was a statistically significant difference between the corpora. The coursebooks included statistically more patterns of complement '*ing*' clauses consisting of communication/speech act verbs. The coursebooks contained these verb patterns in various implicit and explicit learning activities while they offered reported statements. The overuse of these verb patterns in the coursebooks not only provided the EFL learners with "comprehensible input" (Krashen, 1981, 1982, 1985) but also made them aware of complement '*ing*' clauses. The coursebooks might include limited lexicon and lack the lexico-grammatical elements which native speakers exploited because the authors of the coursebooks in Turkey were not native speakers. This could cause certain patterns to be overused in the coursebooks. It was possible that EFL learners were affected, and they might try to overuse complement '*ing*' clauses in their outputs. Martínez-García and Wulff (2012) illustrated that there was a statistically significant difference between the outputs of native speakers and EFL learners. Suggesting that EFL learners tended to overuse complement '*ing*' clauses, Martínez-García and Wulff (2012) underlined the possible problems of the teaching materials, such as the coursebooks. They highlighted that the coursebooks should include "actual native language use" (p. 240), and in order for the EFL learners to gain awareness regarding the complement clauses, corpora might be a "promising" and "powerful" tool in the classroom (p. 241).

4.2.3. Evaluation of the Cognition Verbs Usage in the Coursebooks and the BNC

The number of words used in the reference corpus, the BNC, was higher than the coursebooks. Even though the total number of the patterns of cognition verbs in the coursebooks was fewer than the BNC, the frequencies per 100 words in two corpora were the same. The LL value indicated the overuse even though the frequencies in 1,000 words were equal. Accordingly, the patterns of complement '*ing*' clauses which included

cognition verbs in the coursebooks were overused when they were compared to the BNC. These verb patterns, which conveyed mental situations, for example thinking (Biber et al., 2021), were overused in the coursebooks to offer EFL learners more examples possibly because of “comprehensible input” (Krashen, 1981, 1982, 1985). However, in particular, lower level EFL learners might also overuse complement clauses in their outputs. For instance, lower level EFL learners tended to overuse “*introductory it*” pattern, one of the patterns in complement clauses, in their written outputs (Larsson, 2017). Emphasizing the importance of “*introductory it*” pattern in ESP and EAP, Larsson (2017) suggested that “*introductory it*” pattern should have a part in teaching English. Conducting a corpus-based coursebook analysis, Godoy de la Rosa (2014) highlighted that in teaching English, the authentic language and corpora were likely to have a key part. In addition to that, Wulff, Lester and Martinez-Garcia (2014), examining “*that*” clauses in native speaker and learner corpora, supported the materials designed by means of corpora in the classrooms in order for students to internalize language use.

4.2.4. Evaluation of the Perception Verbs Usage in the Coursebooks and the BNC

The British National Corpus (BNC), the reference corpora of this study, consisted of more lexical items in the coursebooks. In addition, the BNC contained more patterns of perception verbs in total than the coursebooks did. When the frequency analysis was taken into account, the frequencies in 100 words in the coursebooks and the BNC were equal, and the frequencies per 1,000 words were also the same. Nevertheless, it could be inferred from the LL score that in the coursebooks, the perception verb patterns were underused. The reason might be that the designers of the coursebooks and the syllabi in Turkey have cultural concerns regarding certain lexical elements in the patterns of complement ‘*-ing*’ clauses. Çakmak and Ersanlı (2021), analyzing pragmatic functions in the coursebooks used in the high schools in Turkey by means of corpus-based techniques, suggested that pragmatic functions were “underrepresented” in the coursebooks (p. 3212). They also indicated that the coursebooks might include inauthentic language. This could cause the students not to acquire adequate “comprehensible input” (Krashen, 1981, 1982, 1985) from the coursebook regarding the patterns of perception verbs. EFL learners were likely to encounter communication problems since they were not proficient in conveying the meaning of perception. Therefore, it was important that corpora should be considered in designing teaching materials (Çakmak & Ersanlı, 2021; Hsu, 2018). Corpora made it possible for the EFL

learners to see the authentic language in the classroom, and the EFL learners could be aware of the natural language used by native speakers.

4.2.5. Evaluation of the Verbs of Affective Stance Usage in the Coursebooks and the BNC

In this study, the reference corpus, the BNC, included more lexical elements than the coursebooks. The number of the patterns of verbs of affective stance in the BNC was also greater than the coursebooks. In spite of this, the frequency analysis illustrated that the verb patterns were overused in the coursebooks considering the frequency in 100 words, the frequency per 1.000 words and the LL value. It was important to note that there was a statistically significant difference in the use of the verbs of affective stance patterns between two corpora. It seemed that the coursebooks focused on particular lexical items, such as “*like*”. The reason that the coursebooks overused the affective stance verb patterns might be to assist EFL learners in gaining the ability to express their emotions in their outputs. It was possible that overusing certain lexical items helped EFL learners in internalizing the specific lexical items and patterns. Nevertheless, overusing certain patterns in the coursebooks could affect the written outputs of EFL learners. For instance, Paquot (2010) indicated that EFL learners were likely to overuse “*that*” clause controlled by “*think*”, making remarks that students utilized “*think*” in order to “make their claims more persuasive” (p. 176). In the same manner, EFL learners tended to overuse “*that*” clause in their exploratory essays (Kilimci, 2014). Using TICLE, produced by using the written outputs of the students in Turkey, Kilimci (2014) revealed that EFL learners overused “*that*” clause with the mental verbs, such as “*think*”. He also suggested that there was a statistically significant difference between native and non-native corpora.

4.2.6. Evaluation of the Verbs of Description Usage in the Coursebooks and the BNC

Although both corpora used in this study consisted of spoken and written characteristics, the BNC contained more words than the coursebooks. The total number of the pattern of verbs of description was different, and the BNC included more verb patterns than the coursebooks did. Even though the frequency analysis revealed that there was no difference between the corpora in the use of verbs of description, the LL value showed that the verb patterns were underused in the coursebooks. Both the frequencies

in 100 words and the frequencies in 1,000 words were inter se equal in two corpora. The underuse of the verb patterns in the coursebooks might be due to the restricted range of topics which were selected by the coursebook designers in Turkey. The coursebook and syllabus designers in Turkey might have certain preferences, and this could affect the content and the style of the coursebooks. The use of corpora in the classroom, however, could bring authentic language used by native speakers to the classroom (O'Keeffe & McCarthy, 2022; Xu, 2022). For example, using data-driven learning in the EFL settings provided learners lexical and grammatical patterns and their semantic and pragmatic characteristics (Flowerdew, 2009; Römer, 2008, 2009).

4.2.7. Evaluation of the Verbs of Effort, Facilitation, or Hindrance Usage in the Coursebooks and the BNC

Consisting of a large amount of written and spoken data in English language, the BNC also contained greater lexical elements than the coursebooks used in this study. Thus, it was noticeable that the total number of complement '*ing*' clauses controlled by verbs of effort, facilitation, or hindrance in the BNC was higher than the coursebooks. The frequencies per 100 words in the corpora were the same, and the frequencies in 1,000 words were also equal. The LL score indicated that these verb patterns were underused in the coursebooks. The reason that there were underused patterns in the coursebooks might be that the coursebook and the syllabus designers considered certain lexical elements less relevant to the students regarding the particular language learning goals in the themes of the coursebooks. However, this might cause inefficiency in internalizing the patterns in the target language. Emphasizing the importance of data-driven learning and concordance lines in the classroom, Boulton (2016) suggested that corpora were able to help learners to understand the lexical and the grammatical patterns in the target language. Additionally, Biber and Reppen (2002) supported the belief that data-driven learning could show the frequent patterns to the EFL learners.

4.2.8. Evaluation of the Verbs of (Dis)Agreement or (Dis)Approval Usage in the Coursebooks and the BNC

Not only the size of the corpora in the study, but also the total number of the patterns of verbs of (dis)agreement or (dis)approval was different. The total number of words and the verb patterns in the coursebook were lower than the BNC had. Nonetheless, there was no difference between the frequencies per 1,000 words and no

difference between the frequencies in 100 words. Although the coursebooks included two patterns of verbs of (dis)agreement or (dis)approval, the LL score displayed that the verb patterns were overused in the coursebooks when they were compared to the BNC. Even though the proficiency level of the coursebooks was between A1 and B2+ proficiency levels of the Common European Framework of Reference for Languages (CEFR), the coursebooks' designers might consider certain patterns too advanced and difficult to acquire. Therefore, they might avoid using the verb patterns in the coursebooks. Just as the LL value revealed that there was an overuse in the coursebooks, Hewings and Hewings (2002) suggested there was an overuse of "*it-clauses*" in the corpus of EFL learners' written academic outputs. They also advised that corpus-based studies, which compared the outputs of the native and non-native speakers, could be employed for syllabus design and the material development in the classroom.

4.2.9. Evaluation of the Verbs of Avoidance and Obligation Usage in the Coursebooks and the BNC

The size of the corpus consisting of the coursebooks and of the BNC was different. Even though the total number of the patterns of verbs of avoidance and obligation in the coursebooks was lower than the one in the BNC, the frequencies per 1,000 were equal. In parallel, the frequencies in 100 words were also equal. The LL score revealed that the patterns of verbs of avoidance and obligation were overused in the coursebooks. In spite of this overuse in the coursebooks, there was a limited variety of patterns in the coursebooks. For instance, while the pattern controlled by the verb "*avoid*" could be observed in the coursebooks, the one with the verb "*refrain from*" could not be found. The coursebooks seemed to focus on a limited number of patterns in the verbs of avoidance and obligation usage. That is, while certain patterns were overused, some patterns did not occur in the coursebooks. The overuse could be seen possibly because of the number of words in the coursebooks. It was important to note the difference of the word counts between the corpora (345,438 in the coursebooks vs. 96,052,598 in the BNC). The use of limited vocabulary in the coursebooks was likely to restrict the EFL learners from enhancing their ability to communicate in English. As suggested by Norberg and Nordlund (2018), and Parizoska and Rajh (2017), corpora should be utilized in the coursebooks and in the classroom activities in order to contribute to EFL learners in internalizing authentic language and a wide variety of lexical patterns in the target language.

4.2.10. Evaluation of the Verbs of Offense, Punishment, or Apology Usage in the Coursebooks and the BNC

There were two corpora employed in this study, the coursebooks and the BNC, and the corpus size of the coursebooks was smaller. Similarly, the total number of the patterns of verbs of offence, punishment, or apology in the coursebooks was lower than the one in the BNC. However, the frequency in 1,000 words of the verb patterns was equal in two corpora. The LL score denoted that the verb patterns were underused in the coursebooks. In addition to that, there was a statistically significant difference between the corpora. The underused patterns in the coursebooks could hinder the EFL learners from providing spoken and written outputs efficiently. In this regard, data-driven learning, which offered “the independent acquisition of language knowledge” including “lexis, grammatical constructions, collocations” through corpora, helped the EFL learners to better understand the patterns of the target language (O’Keeffe, 2021, p. 259). Therefore, not only did data-driven learning assist the learners in internalizing English, but also the students were able to improve their cognitive skills, such as inferencing, by means of corpora (Meunier, 2022). By inferencing, the learners could discover the language, and autonomous learning might occur (Meunier, 2022).

4.2.11. Evaluation of the Verbs of Required Action Usage in the Coursebooks and the BNC

There was a word count difference between the reference corpus, the BNC, and the corpus containing the spoken and written data of the coursebooks. The number of the patterns of verbs of required action in the coursebooks was lower than the one in the BNC. Despite that, the frequency per 1,000 words of the verb patterns in the coursebooks was equal to the one in the BNC. The LL value showed that the patterns of verbs of required action were overused in the coursebooks. The overuse in the coursebooks and the difference between the corpora might infer that the coursebooks did not represent the authentic language. In order to bring the authentic language into the classroom, corpus-based methods, such as data-driven learning, could be taken into consideration. Discussing the various functions of data-driven learning inside and the outside of the classroom, Pérez-Paredes et al. (2019) and Pérez-Paredes (2022) indicated that the language awareness of the students could be fostered by virtue of the data-driven learning. It was possible that this method contributed to the access to the patterns including complement ‘-ing’ clause in the EFL settings.

4.2.12. Evaluation of All of the Semantic Domains Usage in the Coursebooks and the BNC

In this study, there was a word count difference between two corpora, the BNC and the coursebooks. It could be argued that complement ‘-ing’ clauses were overused in the coursebooks since the log-likelihood value (LL) was +359.05. The overuse could be observed in the frequencies per 100 words. The frequencies in 1,000 words of complement ‘-ing’ clauses in the coursebooks and the BNC (2 and 1 respectively) also indicated this overuse. It was important that there was a statistically significant difference between the corpora. Certain semantic domains were significantly overused in the coursebooks since the EFL learners in Turkey needed to be able to receive “comprehensible input” (Krashen, 1981, 1982, 1985) from their coursebooks in their classrooms. It was noteworthy that whereas the coursebooks seemed to focus on certain verb patterns, such as “like + ‘-ing’ clause” and “go (around/on) + ‘-ing’ clause”, some patterns, including “detest + ‘-ing’ clause”, did not appear in the coursebooks. This might prevent the EFL learners from being exposed to all the verb patterns of complement ‘-ing’ clauses. This indicated that in the coursebooks utilized in the EFL context in Turkey, there was the lack of lexical diversity and lexical sophistication as suggested by Gedik and Kolsal (2022). Moreover, it seemed that the coursebooks were not able to illustrate all the semantic domains effectively due to the lack of lexical diversity. In addition, the significantly overused or underused semantic domains and the verb patterns which did not occur in the coursebooks revealed that the coursebooks were evidently deficient in authentic language in terms of the use of complement ‘-ing’ clauses. This was supported by Peksoy and Harmaoğlu (2017) as they stated that statistically significant difference between the corpora decreased the “similarity to authentic language” (p. 287). Consequently, it should be noted that there was a difference between the coursebooks and the BNC with regard to the use of complement ‘-ing’ clauses, which showed that there was deficiency in lexical diversity and authentic language in the EFL coursebooks in Turkey.

4.3. Pedagogical Implications

Although the role of coursebooks in the English as a Foreign Language (EFL) context is controversial, the teachers and students tend to use the coursebooks provided by the Ministry of National Education in Turkey. Since the curriculum, methods and techniques of English language teaching (ELT) utilized in the classroom were already

determined by the Ministry of National Education in Turkey (Milli Eğitim Bakanlığı, 2018), the coursebooks are likely to guide the teachers regarding what and how they teach. These characteristics of the EFL atmosphere in Turkey have put emphasis on the coursebooks in the classroom. Drawing attention to the role and characteristics of coursebooks in the EFL context, Tomlinson (2008) suggested that coursebooks designed the route which learners and teachers followed. Despite the advantages of the use of coursebooks in the EFL setting, they might not satisfy the learners' needs and bring rich and authentic materials into the classroom (Tomlinson, 2008).

This study tried to explore the frequency, the overuse or underuse of the patterns of semantic domains in complement '*-ing*' clauses (Biber et al., 2021) in the coursebooks. The findings of this study indicated that all of the verb patterns suggested by Biber et al. (2021) were not represented in the coursebooks, which might show that the EFL coursebooks in Turkey did not provide the learners with adequate "comprehensible input" (Krashen, 1981, 1982, 1985) and "language experience" (Tomlinson, 2008, p. 4). However, corpora are able to give EFL learners the opportunity to discover "a wealth of language that has occurred outside of ELT classrooms" (McCarten, 2022, p. 372). It is possible that because, as an individual, each student has different preferences, corpora can help cater to these needs (Gilquin & Granger, 2022). The EFL learners can gain awareness of the varieties of English language, language characteristics of different genres, culture of the English native speakers, such as homes and social settings, collocations, frequency lists, lexico-grammatical patterns, phraseological elements, including complement '*-ing*' clauses, and discourse by means of corpora (McCarten, 2022). It is important to note that students can notice authentic language implicitly, unlike being a passive one that receive the input given by the teacher. Furthermore, the important functions of corpora in the EFL classrooms can be supported by Kumaravadivelu's (2006) "macrostrategic framework". Discussing the postmethod perspectives in English language teaching (ELT), Kumaravadivelu (2006) explained the macrostrategies, one of which was to "maximize learning opportunities" (p. 201). In an effort to develop learning opportunities, EFL learners can employ such ways as "seeking clarification, raising doubts, making suggestions" (Kumaravadivelu, 2006, p. 202). By means of concordance lines, learners can clarify their knowledge, raise doubts and make suggestions regarding the target language. Instead of utilizing the predetermined coursebooks in the classrooms, the use of corpora in the EFL context might help learners to have learning opportunities. It can be understood that corpora should be brought into

the classrooms, and the designers of the syllabi and the coursebooks should take corpora into consideration to present a wide variety of authentic language in the classrooms in Turkey.

Aside from the coursebooks and corpora in the EFL context, this study focused on complement ‘-ing’ clauses. Biber et al. (2021) indicated that native speakers used complement ‘-ing’ clauses in eleven semantic domains with a variety of verbs in the genres of conversation, fiction, news and academic prose. That is, complement ‘-ing’ clauses might have abundant semantic roles in distinctive discourses. Despite the importance and the frequency of complement ‘-ing’ clauses, it seems that EFL learners use complement ‘-ing’ clauses erroneously in their written and spoken outputs. When compared with native speakers’ ones, EFL learners’ outputs can contain overused, underused or misused complement ‘-ing’ clauses (Martínez-García & Wulff, 2012; Schwartz & Causarano, 2007; Tizón-Couto, 2014; Yoon, 2016). This might result in misunderstanding and communication barriers between interlocutors. It should be noted that EFL learners need to raise awareness with respect to complement ‘-ing’ clauses in order to develop their communicative competence and produce language in various genres. By providing input in various genres in which students are interested, corpora might cater to the EFL learners’ needs regarding complement ‘-ing’ clauses.

4.4. Suggestions for Further Studies

This study was a corpus-based analysis that attempted to analyze the frequency, the overuse or underuse of the semantic domains of complement ‘-ing’ clauses (Biber et al., 2021) in the coursebooks administered in the high schools in the English as a Foreign Language (EFL) context in Turkey. It was clear that the sampling of this study was the EFL coursebooks in the high schools in Turkey. However, Ortega (2015), and Pienemann and Lenzing (2015) highlighted the importance of readiness and developmental levels of EFL learners while discussing the processability theory that explained the second language learning process. Accordingly, a study that includes the coursebooks used not only in the high schools in Turkey but also in the secondary schools might provide a better understanding regarding the input obtained by the EFL learners.

This study focused on the semantic domains of complement ‘-ing’ clauses (Biber et al., 2021) in the coursebooks, and the findings revealed that when compared to the BNC, the coursebooks seem to lack lexical diversity in terms of complement ‘-ing’ clauses. In an effort to solve this issue, the themes in the coursebooks can be redesigned

by employing corpus-based reference books, such as Biber et al. (2021). The themes shown in the curriculum (Milli Eğitim Bakanlığı, 2018) provide the EFL learners in Turkey with a semantic perspective regarding a topic. It is possible that these themes are reorganized by taking the semantic domains in corpus-based reference books into consideration. Moreover, by means of digital lexicographic tools, for instance Sketch Engine (Kilgarriff et al., 2014), a dictionary is likely to be built by teachers and researchers in order for learners to acquire the lexico-grammatical elements in English language.

It is important that teachers should be aware of corpus applications in the classroom. As suggested by Şimşek and Can (2023), pre-service EFL teachers might need to gain corpus literacy. The teacher education programs in Turkey can offer teacher training courses with regard to corpus-based techniques in the EFL context. In addition, educational programs, such as workshops and seminars, could be held for the in-service EFL teachers in Turkey. Hence, it is possible for the teachers to employ corpus applications in the classroom.

While compiling the corpus of the coursebooks, this study employed Key Word in Context (KWIC) (Tsukamoto, 2002) as a concordance software to analyze complement ‘-ing’ clauses. There are also other concordance programs to compile a corpus and to visualize corpus data, such as R software. Although R as such is a programming language, R software might assist corpus researchers to provide descriptive statistics, including frequency, in their quantitative studies (Gries, 2013; Jockers & Thalken, 2020). As a software, R whereby EFL researchers can compile corpora is a free and open-source program. Consequently, it is possible that while investigating the frequency of complement ‘-ing’ clauses, a study that utilizes R software to analyze a corpus consisting of coursebooks makes a contribution to the EFL context.

As a reference corpus, this study employed the British National Corpus (BNC). Nevertheless, there are a wide variety of corpora that can be selected as a reference corpus, one of which is the Corpus of Contemporary American English (COCA). Inasmuch as every corpus has distinctive characteristics, such as the number of words and containing various genres, it is possible to receive different results. It is important that the number of reference corpus utilized and the characteristics of the corpora in a study are likely to differ the findings. Thus, a study can be conducted in order to investigate the frequency of complement ‘-ing’ clauses by means of various reference corpora.

This study provided the frequency of the verb patterns of complement ‘-ing’ clauses in the coursebooks in the EFL context in Turkey. Although the findings which can be received by using descriptive statistics, such as frequency, have a key role, it is significant to explore the perceptions of the EFL teachers and the awareness of the EFL learners regarding the use of complement ‘-ing’ clauses in the coursebooks. The qualitative techniques, one of which is to conduct an interview, are likely to indicate the insight and the experience of the teachers and the students concerning the use of complement ‘-ing’ clauses. Hence, an interview can be conducted in the high schools to collect qualitative data regarding the use of complement ‘-ing’ clauses in the EFL coursebooks in Turkey.



REFERENCES

- Akdağ, E., Baydar Ertopcu, F., Uyanık Bektaş, K., Umur Özadalı, S., & Aktaş, T. (2021). *Silverlining* (K. Dikilitaş, Ed.). Milli Eğitim Bakanlığı.
- Akgedik Can, M., & Atcan Altan, N. (2021). *Sunshine*. Cem Web Ofset Sanayi ve Ticaret Anonim Şirketi.
- Alavi, S., & Rajabpoor, A. (2015). Analyzing idioms and their frequency in three advanced ILI textbooks: A corpus-based study. *English Language Teaching*, 8(1), 170–179. <https://doi.org/10.5539/elt.v8n1p170>
- Allen, C. (2015). Marriages of convenience? Teachers and coursebooks in the digital age. *ELT Journal*, 69(3), 249-263. <https://doi.org/10.1093/elt/ccv005>
- Anthony, L. (2007). *AntConc 3.2.1w*. Waseda University.
- Appel, J. (2011). 3. Moments of practice: Teachers' knowledge and interaction in the language classroom. In J. Hüttner, B. Mehlmauer-Larcher, S. Reichl & B. Schiftner (Eds.), *Theory and practice in EFL teacher education: Bridging the gap* (pp. 38-54). Multilingual Matters. <https://doi.org/10.21832/9781847695260-006>
- Arellano, A. R. (2018). A corpus linguistics application in the analysis of textbooks as national teaching instruments of English as a Second Language in Chile. *Actualidades Investigativas en Educación*, 18(1), 376-395. <https://dx.doi.org/10.15517/aie.v18i1.31807>
- Aston, G. (2002). The Learner as corpus designer. In B. Kettemann & G. Marko (Eds.), *Teaching and learning by doing corpus analysis* (pp. 9-25). Brill.
- Baker, P., Hardie, A., & McEnery, T. (2006). *A glossary of corpus linguistics*. Edinburgh University Press.
- Bellés-Fortuño, B. (2008). *Discourse markers within the university lecture genre: A contrastive study between Spanish and North-American lectures*. Asociación Española de Lingüística Aplicada.
- Bennett, G. R. (2010). *Using corpora in the language learning classroom: Corpus linguistics for teachers*. University of Michigan Press.
- Bernardini, S. (2002). Exploring New Directions for Discovery Learning. In B. Kettemann & G. Marko (Eds.), *Teaching and learning by doing corpus analysis* (pp. 165-182). John Benjamins.
- Bernardini, S. (2004). Corpora in the classroom. In J. M. Sinclair (Ed.), *How to use corpora in language teaching* (pp. 15-36). John Benjamins.

- Biber, D. (1999). A register perspective on grammar and discourse: Variability in the form and use of English complement clauses. *Discourse Studies*, 1, 131-150.
- Biber, D., & Barbieri, F. (2007). Lexical bundles in university spoken and written registers. *English for Specific Purposes*, 26(3), 263–286.
- Biber, D., & Conrad, S. (2001). Quantitative Corpus-Based Research: Much More Than Bean Counting. *TESOL Quarterly*, 35(2), 331–336.
<https://doi.org/10.2307/3587653>
- Biber, D., & Conrad, S. (2009). *Register, genre, and style*. Cambridge University Press.
<https://doi.org/10.1017/CBO9780511814358>
- Biber, D., Conrad, S., & Reppen, R. (1998). *Corpus linguistics: Investigating language structure and use*. Cambridge University Press.
- Biber, D., Conrad, S., & Cortes, V. (2004). If you look at ...: Lexical bundles in university teaching and textbooks. *Applied Linguistics*, 25(3), 371–405.
- Biber, D., & Gray, B. (2016). *Grammatical complexity in academic English: Linguistic change in writing*. Cambridge University Press.
- Biber, D., Johansson, S., Leech, G., Conrad, S., & Finegan, E. (2021). *Longman grammar of spoken and written English* (2nd ed.). John Benjamins.
- Biber, D., & Reppen, R. (1998). Comparing native and learner perspectives on English grammar: A study of complement clauses. In S. Granger (Ed.), *Learner English on computer* (pp. 145-158). Routledge.
- Biber, D., & Reppen, R. (2002). What does frequency have to do with grammar teaching? *Studies in Second Language Acquisition*, 24, 199-208.
- Boulton, A. (2016). Integrating corpus tools and techniques in ESP courses. *Concepts and Frameworks in English for Specific Purposes*, 69, 113–137.
<https://doi.org/10.4000/asp.4826>
- Bryman, A. (2012). *Social research methods* (4th ed.). Oxford University Press.
- Buchanan, H., & Norton, J. (2014). *Global coursebooks: Helpful scaffold or debilitating crutch?* [Paper presentation]. IATEFL 2014, Harrogate, UK.
- Bulut, E., Baydar Ertopçu, F., Umur Özadalı, G., & Şentürk, S. (2021). *Teenwise* (K. Dikilitaş, Ed.). Milli Eğitim Bakanlığı.
- Chambers, A. (2015). The learner corpus as pedagogic corpus. In S. Granger, F. Gilquin & F. Meunier (Eds.), *The Cambridge handbook of learner corpus research* (pp. 445 - 464). Cambridge University Press.
<https://doi.org/10.1017/CBO9781139649414.020>

- Chomsky, N. (1965). *Aspects of the theory of syntax*. MIT Press.
- Council of Europe. (2001). *Common European framework of reference for languages: Learning, teaching, assessment*. Cambridge University Press.
- Çakmak, Z., & Ersanlı, C. Y. (2021). A corpus-based study on the authenticity of dialogues in the B1-B2 levels ELT coursebooks used in Turkey. *International Journal of Curriculum and Instruction*, 13(3), 3212-3230.
- Çimen, F., Taşkiran Tiğin, B., Çokçalışkan, A., Özyıldırım, N., & Özdemir, M. (2021). *Count me in 12* (K. Dikilitaş, Ed.). Milli Eğitim Bakanlığı.
- Çimen, F., Taşkiran Tiğin, B., Çokçalışkan, A., Özyıldırım, N., Demir, E., & Fındıkçı, G. (2021). *Count me in 10* (K. Dikilitaş, Ed.). Milli Eğitim Bakanlığı.
- Dunning, T. (1993). Accurate Methods for the Statistics of Surprise and Coincidence. *Computational Linguistics*, 19(1), 61–74.
- Ellis, R. (1992). *Second Language Acquisition and Language Pedagogy*. Multilingual Matters.
- Firth, J. R. (1957). *Papers in linguistics (1934-1951)*. Oxford University Press.
- Firth, J. R. (1968). A synopsis of linguistic theory, 1930–1955. In F. R. Palmer (Ed.), *Selected papers of J. R. Firth 1952–59* pp. (1–32). Indiana University Press.
- Flowerdew, L. (2009). Applying Corpus Linguistics to Pedagogy. *International Journal of Corpus Linguistics*, 14(3), 393-417.
- Francis, G. (1993). A corpus-driven approach to grammar — principles, methods and examples. In M. Baker, G. Francis & E. Tognini Bonelli (Eds.), *Text and technology: In honour of John Sinclair* (pp. 137–156). John Benjamins.
- Francis, G. (1995). Corpus-driven grammar and its relevance to the learning of English in a cross-cultural situation. In A. Pakir (Ed.) *English in education: Multicultural perspectives*. Unipress.
- Francis, G., Hunston, S., & Manning, E. (1996). *Collins COBUILD grammar patterns 1: Verbs*. Harper Collins.
- Francis, G., Hunston, S., & Manning, E. (1998). *Collins COBUILD grammar patterns 2: Nouns and adjectives*. Harper Collins.
- Francis, W., & Kučera, H. (1964). *Manual of information to accompany a standard corpus of present-day edited American English, for use with digital computers*. Brown University, Department of Linguistics.

- Gabrielatos, C. (2006, July 1-4). *Corpus-based evaluation of pedagogical materials: If-conditionals in ELT coursebooks and the BNC* [Conference presentation abstract]. The 7th Teaching and Language Corpora Conference, Paris, France.
<http://eprints.lancs.ac.uk/882>
- Gaskell, D., & Cobb, T. (2004). Can learners use concordance feedback for writing errors? *System*, 32(3), 301-319.
- Gawlik, O. (2013). On the transitive out of -ing complementation pattern in contemporary spoken American English: A corpus-based study. *Poznań Studies in Contemporary Linguistics*, 49(2), 167-183. <https://doi.org/10.1515/psicl-2013-0006>
- Genç Karataş, Ç. (2020). *Ortaöğretim İngilizce 10*. Gizem Yayıncılık.
- Godoy De La Rosa, W. A. (2014). Differences between ELT textbooks and English language corpora: A quick look into the Chilean context. *The Language Education and Culture Journal*, 1(1), 1-8.
- Granger, S. (1998). Prefabricated patterns in advanced EFL writing: Collocations and formulae. In A. P. Cowie (Ed.), *Phraseology: theory, analysis and applications* (pp.145-160). Oxford University Press.
- Granger, S. (2002). A bird's-eye view of learner corpus research. In S. Granger, J. Hung & S. Petch-Tyson (Eds.), *Computer learner corpora, second language acquisition and foreign language teaching* (pp. 3-33). John Benjamins.
- Groom, N. (2005). Pattern and meaning across genres and disciplines: An exploratory study. *Journal of English for Academic Purposes*, 4(3), 257-277.
- Gedik, T., & Kolsal, Y. (2022). A Corpus-based analysis of high school English textbooks and English university entrance exams in Turkey. *Theory and Practice of Second Language Acquisition*, 8(1), 157-176.
<https://doi.org/10.31261/TAPSLA.9152>
- Gilmore, A. (2007). Authentic materials and authenticity in foreign language learning. *Language Teaching*, 40(2), 97-118. <https://doi:10.1017/S0261444807004144>
- Gilquin, G., & Granger, S. (2022). Using data-driven learning in language teaching. In A. O'Keeffe & M. McCarthy (Eds.), *The Routledge handbook of corpus linguistics* (2nd ed., pp. 430-442). Routledge.
<https://doi:10.4324/9780367076399-1>

- Güdücü A., & Güngör, F. (2022). A Comparison of vocabulary items for the eighth grade English coursebooks in Turkey. *Pamukkale Üniversitesi Eğitim Fakültesi Dergisi*, 54, 130-157. doi: 10.9779/pauefd.798049
- Gries, S. T. (2010). Useful statistics for corpus linguistics. In A. Sánchez & M. Almela (Eds.), *A mosaic of corpus linguistics: selected approaches* (pp. 269-291). Peter Lang.
- Gries, S. T. (2013). *Statistics for linguistics with R* (2nd ed.). De Gruyter Mouton.
- Hadley, G., & Charles, M. (2017). Enhancing extensive reading with data-driven learning. *Language Learning & Technology*, 21(3), 131–152.
- Halliday, M. A. K. (2013). *Halliday's introduction to functional grammar*. Routledge.
- Hewings, M., & Hewings, A. (2002). It is interesting to note that ...: A Comparative Study of Anticipatory “it” in Student and Published Writing. *English for Specific Purposes*, 21(4), 367-383.
- Hoey, M. (2005). *Lexical priming*. Blackwell Publishing Ltd.
- Hornby, A.S. (1954). *A guide to patterns and usage in English*. Oxford University Press.
- Hsu, W. (2018). The most frequent BNC/COCA mid- and low-frequency word families in English-medium traditional Chinese medicine (TCM) textbooks. *English for Specific Purposes*, 51, 98–110. <https://doi.org/10.1016/j.esp.2018.04.001>
- Huddleston, R., & Pullum, G. (2002). *The Cambridge grammar of the English language*. Cambridge University Press. <https://doi.org/10.1017/9781316423530>
- Hunston, S., & Francis, G. (2000). *Pattern grammar: A corpus-driven approach to the lexical grammar of English*. John Benjamins. <https://doi.org/10.1075/scl.4>
- Hunston, S. (2002a). Pattern grammar, language teaching, and linguistic variation: Applications of a corpus-driven grammar. In R. Reppen, S. Fitzmaurice & D. Biber (Eds.), *Using corpora to explore linguistic variation* (pp. 167–183). John Benjamins.
- Hunston, S. (2002b). *Corpora in applied linguistics*. Cambridge University Press.
- Hunston, S. (2003). Lexis, word form and complementation pattern: A corpus study. *Functions of Language*, 10(1), 31-60. <https://doi.org/10.1075/fol.10.1.03hun>
- Hunston, S. (2007). Semantic prosody revisited. *International Journal of Corpus Linguistics*, 12(2), 249-268. <https://doi.org/10.1075/ijcl.12.2.09hun>
- Hunston, S. (2011). *Corpus approaches to evaluation: Phraseology and evaluative language*. Routledge.

- Hunston, S. (2013). Pattern grammar. In C. A. Chapelle (Ed.), *The encyclopedia of applied linguistics*. Blackwell Publishing Ltd.
- James, M. A. (2017). A Practical tool for evaluating the potential of ESOL textbooks to promote learning transfer. *TESOL Journal*, 8(2), 385-408.
- Jockers, M. L., & Thalken, R. (2020). *Text analysis with R* (2nd ed.). Springer.
- Johns, T. F. (1991). Should you be persuaded-Two samples of data-driven learning materials. *ELR Journal*, 4, 1-16.
- Kennedy, G. (1998). *An introduction to corpus linguistics*. Longman.
- Kilgariff, A. Baisa, V., Bušta, J., Jakubíček, M., Kovář, V., Michelfeit, J., Rychlý, P. & Suchomel, V. (2014). The Sketch Engine: Ten years on. *Lexicography*, 1(1), 7-36.
- Kilimci, A. (2014). That-clauses in native and nonnative Academic Writing. *Modern Journal of Language Teaching Methods*, 4(1), 301-318.
- Köroğlu, Z. & Tüm, G. (2017). A study on metadiscursive interaction in the MA theses of the native speakers of English and the Turkish speakers of English. *Journal of Language and Linguistic Studies*, 13(2), 526-534.
- Krashen, S. (1981). *Second language acquisition and second language learning*. Pergamon Press.
- Krashen, S. (1982). *Principles and practice in second language acquisition*. Pergamon Press.
- Krashen, S. D. (1985). *The input hypothesis: Issues and implications*. Longman.
- Kumaravadivelu, B. (2006). *Understanding language teaching: From method to postmethod*. Routledge. <https://doi.org/10.4324/9781410615725>
- Larsen-Freeman, D. (2013). Transfer of learning transformed. *Language Learning*, 63, 107-129. <https://doi.org/10.1111/j.1467-9922.2012.00740.x>
- Larsson, T. (2017). A functional classification of the introductory it pattern: Investigating academic writing by non-native-speaker and native-speaker students. *English for Specific Purposes*, 48, 57-70. <https://doi.org/10.1016/j.esp.2017.06.001>
- Leech, G. (1992). Corpora and theories of linguistic performance. In J. Svartvik (Ed.), *Directions in corpus linguistics: Proceedings of Nobel Symposium 82 Stockholm, 4-8 August 1991* (pp. 105-126). De Gruyter Mouton. <https://doi.org/10.1515/9783110867275.105>
- Mair, C. (2003). Gerundial complements after *begin* and *start*: Grammatical and sociolinguistic factors, and how they work against each other. In G. Rohdenburg

- & B. Mohndorf (Eds.), *Determinants of grammatical variation in English* (pp. 347-77). De Gruyter Mouton.
- Man, D., & Chau, M. H. (2019). Learning to evaluate through that-clauses: Evidence from a longitudinal learner corpus. *Journal of English for Academic Purposes*, 37, 22–33. <https://doi.org/10.1016/j.jeap.2018.11.007>
- Martinez-Garcia, M. T., & Wulff, S. (2012). Not wrong, yet not quite right: Spanish ESL students' use of gerundial and infinitival complementation. *International Journal of Applied Linguistics*, 22(2), 225–244. <https://doi.org/10.1111/j.1473-4192.2012.00310.x>
- McMillan, J. H., & Schumacher, S. (2014). *Research in education evidence-based inquiry* (7th ed.). Pearson.
- McCarten, J. (2022). Corpus-informed course design. In A. O'Keeffe & M. McCarthy (Eds.), *The Routledge handbook of corpus linguistics* (2nd ed., pp. 371-386). Routledge. [https://doi: 10.4324/9780367076399-1](https://doi:10.4324/9780367076399-1)
- McCarthy, M., & O'Keeffe, A. (2010). What are corpora and how have they evolved? In A. O'Keeffe & M. McCarthy (Eds.), *The Routledge handbook of corpus linguistics* (1st ed., pp. 3-13). Routledge.
- McEnery, T., Xiao, R., & Tono, Y. (2006). *Corpus-based language studies: An advanced resource book*. Routledge.
- McEnery, T., & Wilson, A. (1996). *Corpus linguistics*. Edinburgh University Press.
- Merriam-Webster. (n.d.). Corpus. In *Merriam-Webster.com dictionary*. Retrieved September 27, 2022, from <https://www.merriam-webster.com/dictionary/corpus>
- Meunier, F. (2002). The Pedagogical Value of Native and Learner Corpora in EFL Grammar Teaching. In S. Granger (Ed.) *Computer learner corpora, second language acquisition and foreign language teaching* (pp. 119-139). John Benjamins Publishing Company.
- Meunier, F. (2022). Revamping DDL: Affordances of digital technology. In R. R. Jablonkai & E. Csomay (Eds.), *The Routledge handbook of corpora and English language teaching and learning* (pp. 11-25). Routledge. <https://doi.org/10.4324/9781003002901>
- Miller, D. G. (2002). *Nonfinite structures in theory and change*. Oxford University Press.
- Milli Eğitim Bakanlığı. (2018). *Ortaöğretim İngilizce dersi (9., 10., 11. ve 12. sınıflar) öğretim programı*. Milli Eğitim Bakanlığı.

- Norberg, C., & Nordlund, M. (2018). A Corpus-based Study of Lexis in L2 English Textbooks. *Journal of Language Teaching and Research*, 9, 463-473.
- Noonan, M. (2007). Complementation. In T. Shopen (Ed.), *Language typology and syntactic description* (pp. 52-150). Cambridge University Press.
<https://doi.org/10.1017/CBO9780511619434.002>
- Norton, J., & Buchanan, H. (2022). Why do we need coursebooks? In J. Norton & H. Buchanan (Eds.), *The Routledge handbook of materials development for language teaching* (pp. 49-64). Routledge. <http://dx.doi.org/10.4324/b22783-6>
- Nunan, D. (1988). *Syllabus design*. Oxford University Press.
- Nunan, D. (2001). Syllabus design. In M. Celce-Murcia (Ed.), *Teaching English as a second or foreign language* (3rd ed., pp. 55-65). Heinle & Heinle.
- O’Keeffe, A. (2021). Data-driven learning – A call for a broader research gaze. *Language Teaching*, 54(2), 259–272. <https://doi.org/10.1017/S0261444820000245>
- O’Keeffe, A., & Farr, F. (2003). Using language corpora in initial teacher education: Pedagogic issues and practical applications. *Tesol Quarterly*, 37(3), 389-417.
- O’Keeffe, A., & McCarthy, M. (2022). ‘Of what is past, or passing, or to come’: Corpus linguistics, changes and challenges. In A. O’Keeffe & M. McCarthy (Eds.), *The Routledge handbook of corpus linguistics* (2nd ed., pp. 1-9). Routledge.
<https://doi.org/10.4324/9780367076399-1>
- O’Keeffe, A., & McCarthy, M. (Eds.). (2022). *The Routledge handbook of corpus linguistics* (2nd ed). Routledge.
- O’Keeffe, A., McCarthy, M., & Carter, R. (2007). *From corpus to classroom: Language use and language teaching*. Cambridge University Press.
<https://doi.org/10.1017/CBO9780511497650>
- Ornstein, A. C., & Hunkins, F. P. (2018). *Curriculum: Foundations, principles and issues* (7th ed.). Pearson.
- Ortega, L. (2015). Second language learning explained? SLA across 10 contemporary theories. In B. VanPatten & J. Williams (Eds.), *Theories in second language acquisition* (2nd ed., pp. 245-272). Routledge.
- Paquot, M. (2010). *Academic vocabulary in learner writing: From extraction to analysis*. Bloomsbury Publishing.
- Parizoska, J., & Rajh, I. (2017). Idiom variation in business English textbooks: A corpus-based study. *ESP Today*, 5(1), 46–67.
<https://doi.org/10.18485/esptoday.2017.5.1.3>

- Peacock, M. (2011). A comparative study of introductory it in research articles across eight disciplines. *International Journal of Corpus Linguistics*, 16(1), 72-100.
<https://doi.org/10.1075/ijcl.16.1.04pea>
- Peksoy, E., & Harmaoğlu, Ö. (2017). Corpus based authenticity analysis of language teaching course books. *International Journal of Languages' Education and Teaching*, 5(4), 287-307.
- Pérez-Paredes, P. (2022). How learners use corpora. In R. R. Jablonkai & E. Csomay (Eds.), *The Routledge handbook of corpora and English language teaching and learning* (pp. 11-25). <https://doi.org/10.4324/9781003002901-31>
- Pérez-Paredes, P., Sánchez-Tornel, M., & Alcaraz Calero, J. M. (2012). Learners' search patterns during corpus-based focus-on-form activities: A study on hands-on concordancing. *International Journal of Corpus Linguistics*, 17(4), 483-515.
<https://doi.org/10.1075/ijcl.17.4.02par>
- Pérez-Paredes, P., Ordoñana Guillamón, Van de Vyver, J., Meurice, A., Aguado-Jiménez, P., Conole, G., & Sánchez Hernández, P. (2019). Mobile data-driven language learning: Affordances and learners' perception. *System*, 84, 145-159.
<https://doi.org/10.1016/j.system.2019.06.009>
- Philip, A., Mukundan, J., & Nimehchisalem, V. (2012). Conjunctions in Malaysian secondary school English language textbooks. *International Journal of Applied Linguistics and English Literature*, 1(1), 1-11.
<https://doi.org/10.7575/ijalel.v.1n.1p.1>
- Pienemann, M., & Lenzing, A. (2015). Processability theory. In B. VanPatten & J. Williams (Eds.), *Theories in second language acquisition* (2nd ed., pp. 159-179). Routledge.
- Rayson, P., & Garside, R. (2000). Comparing corpora using frequency profiling. *CompareCorpora '00: Proceedings of the Workshop on Comparing Corpora*, 1-6. <https://doi.org/10.3115/1604683.1604686>
- Reppen, R. (2006). Corpus studies: Second language. In *Encyclopedia of language & linguistics* (pp. 248-250). Elsevier Ltd.
- Römer, U. (2008). Corpora and language teaching. In A. Lüdeling & M. Kytö (Eds.), *Corpus linguistics: An international handbook* (Vol. 1) (pp. 112-130). De Gruyter Mouton.

- Römer, U. (2009). Corpus research and practice: What help do teachers need and what can we offer? In K. Aijmer (Ed.), *Corpora and language teaching* (pp. 83-98). John Benjamins. <https://doi.org/10.1075/scl.33.09rom>
- Rudanko, J. (1989). *Complementation and case grammar*. SUNY Press.
- Rudanko, J. (1996). *Prepositions and complement clauses*. SUNY Press.
- Rudanko, J. (1999). *Diachronic studies of English complementation patterns*. University Press of America.
- Rudanko, J. (2000). *Corpora and complementation*. University Press of America.
- Rudanko, J. (2003). Comparing alternate complements of object control verbs: Evidence from the bank of English corpus. In P. Leistyna & C. F. Meyer (Eds.), *Corpus analysis: Language structure and language use* (pp. 273–283). Brill.
- Rudanko, J. (2005). Lexico-grammatical innovation in current British and American English: A case study on the transitive into -ing pattern with evidence from the bank of English corpus. *Studia Neophilologica*, 77, 171–187.
- Rudanko, J. (2011). *Changes in complementation in British and American English: Corpus-based studies on non-finite complements in recent English*. Springer.
- Quirk, R., Greenbaum, S., Leech, G., & Svartvik, J. (1985). *A comprehensive grammar of the English language*. Longman.
- Schwartz, M., & Causarano, P. L. (2007). The role of frequency in SLA: An analysis of gerunds and infinitives in ESL written discourse. *Arizona Working Papers in SLA & Teaching*, 14, 43-57.
- Scott, M. (1997). PC analysis of key words - and key key words. *System*, 25(2), 233-45. [https://doi.org/10.1016/S0346-251X\(97\)00011-0](https://doi.org/10.1016/S0346-251X(97)00011-0)
- Scott, M. (2009). *WordSmith Tools*. Lexical Analysis Software Ltd.
- Shannon, P. (2010). Textbook development and selection. *International Encyclopedia of Education* (pp. 397-402). Elsevier Ltd.
- Sinclair, J. (Ed.). (1990) *Collins COBUILD English Grammar*. Harper Collins.
- Sinclair, J. (1991). *Corpus, concordance, collocation*. Oxford University Press.
- Sinclair, J. (1997). Corpus evidence in language description. In A. Wichmann, S. Fligelstone, T. McEnery & G. Knowles (Eds.), *Teaching and language corpora* (pp. 27-39). Longman.
- Sinclair, J. (Ed.). (2003). *Collins COBUILD English language dictionary* (4th ed.). Collins.

- Şimşek, T., & Can, C. (2023). Integrating Corpus Literacy Query into Language Teacher Training: Course Design, Implementation, and Evaluation. *Porta Linguarum Interuniversity Magazine of Didactics of Foreign Languages*, (39), 193–211. <https://doi.org/10.30827/portalin.vi39.23885>
- Stubbs, M. (1996). *Text and corpus analysis*. Blackwell.
- Su, H. (2015). *Judgement and adjective complementation patterns in biographical discourse: a corpus study*. [Unpublished doctoral dissertation]. University of Birmingham.
- Tizón-Couto, B. (2014). *Clausal complements in native and learner spoken English*. Peter Lang Verlag.
- Tognini Bonelli, E. (2001). *Corpus linguistics at work*. John Benjamins.
- Tognini Bonelli, E. (2004). Working with corpora: Issues and insights. In C. Coffin, A. Hewings & K. O'Halloran (Eds.), *Applying English grammar: Functional and corpus approaches* (pp. 11-24). Routledge.
- Tognini Bonelli, E. (2010). Theoretical overview of the evolution of corpus linguistics In A. O'Keefe & M. McCarthy (Eds.), *The Routledge handbook of corpus linguistics* (1st ed., pp. 14-27). Routledge.
- Tomlinson, B. (2008). Language acquisition and language learning materials. In B. Tomlinson (Ed.), *English language learning materials: A critical review* (pp. 3-13). Continuum.
- Tomlinson, B. (Ed.). (2011). *Materials development in language teaching* (2nd ed.). Cambridge University Press.
- Tomlinson, B., & Masuhara, H. (2018). *The Complete Guide to Materials Development for Language Learning*. Wiley Blackwell.
- Tsukamoto, S. (2002). KWIC Concordance for Windows: Easy Access to Corpora. In T. Saito, J. Nakamura & S. Yamazaki (Eds.), *English corpus linguistics in Japan* (pp. 325-340). Brill. https://doi.org/10.1163/9789004334205_020
- Vettorel, P. (2018). ELF and communication strategies: Are they taken into account in ELT materials? *RELC Journal*, 49(1), 58-73. <https://doi.org/10.1177/0033688217746204>
- Xu, J. (2022). A historical overview of using corpora in English language teaching. In R. R. Jablonkai & E. Csomay (Eds.), *The Routledge handbook of corpora and English language teaching and learning* (pp. 11-25). Routledge. <https://doi: 10.4324/9781003002901-3>

- Wulff, S., Lester, N., & Martinez-Garcia, M. T. (2014). *That*-variation in German and Spanish L2 English. *Language and Cognition*, 6(2), 271–299.
<https://doi.org/10.1017/langcog.2014.5>
- Yoon, C. (2016). Korean EFL Learners' Use of *to*-infinitival and Gerundial Verb Complementation: A Constructionist Approach. *Journal of Language Sciences*, 23(2), 193-217. <http://dx.doi.org/10.14384/kals.2016.23.2.193>



APPENDICES

Appendix A. Ethics Committee Permission Request Form

ÇAĞ ÜNİVERSİTESİ SOSYAL BİLİMLER ENSTİTÜSÜ			
TEZ / ARAŞTIRMA / ANKET / ÇALIŞMA İZNİ / ETİK KURULU İZNİ TALEP FORMU VE ONAY TUTANAK FORMU			
ÖĞRENCİ BİLGİLERİ			
T.C. NOSU			
ADI VE SOYADI	Mehmet Nacar		
ÖĞRENCİ NO	2021008012		
TEL. NO.			
E - MAIL ADRESLERİ			
ANA BİLİM DALI	İngiliz Dili Eğitimi		
HANGİ AŞAMADA OLUĞU (DERS / TEZ)	Tez		
İSTEKDE BULUNDUĞU DÖNEME AIT DÖNEMLİK KAYDINI YAPILIP-YAPILMADIGI			
2021 / 2022 - BAHAİR DÖNEMİ KAYDINI YENİLEDİM.			
ARAŞTIRMA/ANKET/ÇALIŞMA TALEBİ İLE İLGİLİ BİLGİLER			
TEZİN KONUSU	A Comparative Corpus-based Analysis of Complement ‘-ing’ Clauses Used in BNC and Coursebooks		
TEZİN AMACI	This study tries to investigate the frequency of complement ‘-ing’ clauses suggested by Biber et al. (2021) and complement ‘-ing’ clauses used in EFL coursebooks provided by Turkish Ministry of Education in high schools. This study is conducted by using corpus-based methodology, which makes it possible to find out statistically significant difference between frequencies of complement ‘-ing’ clauses in coursebooks and BNC. This study also presents the semantic domains of complement ‘-ing’ clauses, which are verbs of aspect or manner, communication/speech act verbs, cognition verbs, perception verbs, verbs of affective stance, verbs of description, verbs of effort, facilitation, or hindrance, verbs of (dis)agreement or (dis)approval, verbs of avoidance and obligation, verbs of offense, punishment, or apology, verbs of required action (Biber et al., 2021), utilized in coursebooks. In order to reach the results, the research questions are addressed: 1. Is there any statistically significant difference between coursebooks used in Turkish EFL classrooms and BNC in the use of complement ‘-ing’ clauses? 2. Is there any statistically significant difference between coursebooks used in Turkish EFL classrooms and BNC in the semantic domains of complement ‘-ing’ clause?		
TEZİN TÜRKÇE ÖZETİ	Türkiye’de İngilizceyi yabancı dil olarak öğretenler materyali olarak sınıflarında ders kitaplarını kullanılmaktadır. İngilizce öğretiminde ders kitaplarının öneminin rağmen Türk ders kitaplarının gerçek dil içerdigi ve öğrencileri gerçek hayata hazırladığı tartışmalıdır. Ana dil konuşucularının gerçek hayatlarından toplanan yazılı ve sözlü verileri içeren derlemeler, İngilizceyi yabancı dil olarak öğrenen ve öğrenenlere gerçek dili sağlar. Anlamsal alanlar içeren tümleş ‘-ing’ yantımcelerinin gerçek hayatta önemli bir rol oynaması olasıdır. Bu bağlamda, bu çalışma, ders kitaplarının İngilizlerin gerçek hayatta kullandıkları dili yansıtmadığını anlamak ve ders kitaplarındaki tümleş ‘-ing’ yantımcelerinin sıklığını görmek için derlem kitaplarını ve İngiliz Ulusal Derlemi’ni karşılaştırmaya çalışacaktır. Bu ders kitapları düz metne çevrilecek ve Key Word in Context (KWIC) programı kullanılarak derlenecektir. Sketch Engine Ulusal İngiliz Derlemi’ne erişmek için kullanılacak. Ders kitapları derlemi ve İngiliz Ulusal Derlemi arasında istatistiksel olarak önemli bir fark olup olmadığını, fazla kullanımı ya da az kullanımını anlamak için Log-likelihood değerleri kullanılacak. Bu çalışma ders kitaplarındaki gerçek dilin ve tümleş ‘-ing’ yantımcelerinin önemini anlamakta yardımcı olacaktır.		
ARAŞTIRMA YAPILACAK OLAN SEKTÖRLERİ / KURUMLARIN ADLARI	Millî Eğitim Bakanlığı		
İZİN ALINACAK OLAN KURUMA AİT BİLGİLER (KURUMUN ADI- ŞUBESİ MÜDÜRLÜĞÜ - İLİ - İLÇESİ)	Millî Eğitim Bakanlığı		
YAPILMAK İSTENEN ÇALIŞMANIN İZİN ALINMAK İSTENEN KURUMUN HANGİ İLÇELERİNE HANGİ KURUMUNA HANGİ BÖLÜMÜNDE/ HANGİ ALANINA HANGİ KONULARDA/ HANGİ GRUBA/ KİMLERE/ NE UYGULANACAĞI GİBİ AYRINTILI BİLGİLER	Millî Eğitim Bakanlığı Ders Kitapları		
UYGULANACAK OLAN ÇALIŞMAYA AİT ANKETLERİN ÖLÇEKLERİN BAŞLIKLAR/ HANGİ ANKETLERİN ÖLÇELERİN UYGULANACAĞI	Çalışma, content çalışması olduğu için anket, ölçek, form vb. evrak kullanılmamıştır		
EKLER (ANKETLER, ÖLÇEKLER, FORMLAR, ... V.B. GİBİ EVRAKLARIN İSMİLERİYLE BİRLİKTE KAÇ ADİTSA YAFA OLDUKLARINA AİT BİLGİLER İLE AYRINTILI YAZILACAKTIR)	1) (.....) Sayfa Ölçeği. 2) (.....) Sayfa Anketi. 3) (.....) Sayfa Formları. 4) (.....) Sayfa		
ÖĞRENCİNİN ADI - SOYADI: Mehmet Nacar		ÖĞRENCİNİN İMZASI: TARİH: 24 / 06 / 2022	
		İslak imzalıdır.	
TEZ/ ARAŞTIRMA/ANKET/ÇALIŞMA TALEBİ İLE İLGİLİ DEĞERLENDİRME SONUCU			
1. Seçilen konu Bilim ve İş Dünyasına katkı sağlayabilecektir.			
2. Anılan konu faaliyet alanı içerisine girmektedir.			
1.TEZ DANIŞMANININ ONAYI	2.TEZ DANIŞMANININ ONAYI (VARSA)	ANA BİLİM DALI BAŞKANININ ONAYI	SOSYAL BİLİMLER ENSTİTÜSÜ MÜDÜRÜNÜN ONAYI
Adı - Soyadı: Zehra Köroğlu	Adı - Soyadı:	Adı - Soyadı: Şehnaz Şahinkarakaş	Adı - Soyadı:
Unvanı: Dr. Öğretim Üyesi	Unvanı:	Unvanı: Prof. Dr.	Unvanı:
İmzası: İslak imzalıdır.	İmzası:	İmzası İslak imzalıdır.	İmzası:
24/06/2022	 / / 20....	 / / 20....	 / / 20....
ETİK KURULU ASIL ÜYELERİNE AİT BİLGİLER			
Adı - Soyadı: Şehnaz ŞAHINKARAKAŞ	Adı - Soyadı: Yücel ERTEKİN	Adı - Soyadı: Deniz AYNER GÜLER	Adı - Soyadı: Mustafa BAŞARAN
Adı - Soyadı: Mustafa BAŞARAN	Adı - Soyadı: Mustafa TEVİK ODMAN	Adı - Soyadı: Hüseyin MAHR FİSUNOĞLU	Adı - Soyadı: Jülide İNÖZÜ
Unvanı : Prof. Dr.	Unvanı : Prof. Dr.	Unvanı: Prof. Dr.	Unvanı : Prof. Dr.
Unvanı : Prof. Dr.	Unvanı : Prof. Dr.	Unvanı: Prof. Dr.	Unvanı : Prof. Dr.
İmzası :	İmzası :	İmzası :	İmzası :
İmzası :	İmzası :	İmzası :	İmzası :
Etik Kurulu Jüri Başkanı - Asıl Üye	Etik Kurulu Jüri Asıl Üyesi	Etik Kurulu Jüri Asıl Üyesi	Etik Kurulu Jüri Asıl Üyesi
Etik Kurulu Jüri Asıl Üyesi	Etik Kurulu Jüri Asıl Üyesi	Etik Kurulu Jüri Asıl Üyesi	Etik Kurulu Jüri Asıl Üyesi
Etik Kurulu Jüri Asıl Üyesi	Etik Kurulu Jüri Asıl Üyesi	Etik Kurulu Jüri Asıl Üyesi	Etik Kurulu Jüri Asıl Üyesi
OY BİRLİĞİ İLE OY ÇOKLUĞU İLE 			
Çalışma yapılacak olan tez için uygulayacak olduğu Anketleri/Formları/Ölçekleri Çağ Üniversitesi Etik Kurulu Asil Jüri Üyelerine incelenmiş olup, 24 / 06 / 2022 - 31 / 01 / 20			

Appendix B. Semantic Domains of the Verbs

1. Verbs of Aspect or Manner

verb + ing-clause: begin, come, go (around/on), keep (on), sit, spend (time), start, stop, burst out, cease, commence, continue, delay, be done, finish, hesitate, postpone, quit, remain, resume, stand

verb + NP + ing-clause: start, stop, delay, postpone

2. Communication/Speech Act Verbs

verb + ing-clause: acknowledge, complain about/of, mention, propose, recommend, renounce, report, suggest, talk about, talk NP into, urge, be warned about/warn NP about

verb + NP + ing-clause: acknowledge, complain about/of, discuss, emphasize, insist on, mention, propose, recommend, report, suggest, talk about, be warned about/warn NP about

3. Cognition Verbs

verb + ing-clause: believe in, conceive of, concentrate on, consider, contemplate, decide about, forget about, mean, recall, remember, study, think about/of

verb + NP + ing-clause: believe in, conceive of, concentrate on, consider, contemplate, decide about, forget about, recall, recognize, remember, think about/of

4. Perception Verbs

verb + ing-clause: dream of, (can't) see envisage, envision, experience, hear, imagine, picture

verb + NP + ing-clause: dream of, envisage, envision, experience, feel, imagine, notice, observe, overhear, overlook, perceive, picture, see, sense, smell, spot, visualise, watch

5. Verbs of Affective Stance

verb + ing-clause: (cannot) bear, (don't) care for, be concerned about, brood over, celebrate, count on, delight in, deplore, detest, dislike, dread, endure, enjoy, be engrossed in, (can't) face, favor, fancy, feel like, hate, be interested in/interest NP in, like, loathe, love, (don't) mind, miss, prefer, regret, relish, resent, can't stand, tire of, tolerate, welcome, worry about

verb + NP + ing-clause: admire, (cannot) bear, (don't) care for, be concerned about, brood over, celebrate, count on, delight in, depend on, deplore, detest, dislike, dread, endure, enjoy, (can't) face, favor, fancy, hate, be interested in/interest NP in, like, loathe, love, (don't) mind, miss, prefer, regret, relish, rely on, resent, can't stand, tire of, tolerate, want, welcome, worry about

6. Verbs of Description

verb + ing-clause: amount to, be associated with/associate NP with, be based on/base NP on, be used for, consist of, describe, be to do with, be engaged in/engage NP in, entail, be found by, include, involve, be involved in/involve NP in

verb + NP + ing-clause: account of, amount to, be associated with/associate NP with, be based on/base NP on, be used for, consist of, describe, depict, detect, be to do with, discover, entail, find, hide, highlight, identify, ignore, include, involve, be involved in/involve NP in, leave, photograph, record

7. Verbs of Effort, Facilitation, or Hindrance

verb + ing-clause: be achieved by/achieve NP by, adapt to, (can't) afford, aim at, assist in/assist NP in, bother/bother NP over, cope with, deal with, discourage, eliminate, facilitate, get <e.g. + going/moving>, handle, have (trouble/difficulty), (can't) help, hinder, inhibit/inhibit NP from, keep NP from, be obtained by/obtain NP by, overcome, prevent (NP) (from), risk, save NP from, succeed in, try

verb + NP + ing-clause: be achieved by/achieve NP by, adapt to, (can't) afford, aim at, assist in/assist NP in, bother NP over, cope with, deal with, discourage, eliminate, facilitate, get, handle, (can't) help, hinder, limit, overcome, prevent (from), restrict, risk, save NP from, support

8. Verbs of (Dis)Agreement or (Dis)Approval

verb + ing-clause: accept, agree to, allow (for), approve of, begrudge, defer, deserve, disagree with, disapprove of, permit

verb + NP + ing-clause: accept, accommodate, agree to, allow (for), approve of, begrudge, disagree with, disapprove of, endorse, permit

9. Verbs of Avoidance and Obligation

verb + ing-clause: avoid, escape (from), evade, necessitate, neglect, refrain from, resist, shun, be stuck (with)/stick NP with, withstand

verb + NP + ing-clause: avoid, necessitate, need, require, resist, be stuck with/stick NP with, withstand

10. Verbs of Offense, Punishment, or Apology

verb + ing-clause: accuse NP of/be accused of, admit, admit to, apologize for, be arrested for/arrest NP for, be blacklisted for/blacklist NP for, be blamed for/blame NP for, be caught, be cited for/cite NP for, condemn, confess (to), defend, deny, forgive, justify, repent, be suspected of/suspect NP of

verb + NP + ing-clause: admit to, apologize for, be blamed for/blame NP for, catch, condemn, confess to, defend, forgive, justify

11. Verbs of Required Action

verb + ing-clause: need, require, want



Appendix C. Research and Ethics Committee Permission



T.C.
ÇAĞ ÜNİVERSİTESİ
Sosyal Bilimler Enstitüsü

Sayı : E-23867972-050.01.04-2200005252
Konu : Bilimsel Araştırma ve Yayın Etiği
Kurulu Kararı Alınması Hk.

07.07.2022

REKTÖRLÜK MAKAMINA

İlgi: 09.03.2021 tarih ve E-81570533-050.01.01-2100001828 sayılı Bilimsel Araştırma ve Yayın Etiği Kurulu konulu yazınız.

İlgi tarihli yazınız kapsamında Üniversitemiz Sosyal Bilimler Enstitüsü bünyesindeki Lisansüstü Programlarda halen tez aşamasında kayıtlı olan **Mehmet Nacar** isimli öğrencimize ait tez evraklarının "Üniversitemiz Bilimsel Araştırma ve Yayın Etiği Kurulu Onayları" alınmak üzere Ek'te sunulmuş olduğunu arz ederim.

Prof. Dr. Murat KOÇ
Sosyal Bilimler Enstitüsü Müdürü

Ek :

- 1 - Tez etik, anket izin istek formu.
- 2 - İngiliz dili eğitimi ana bilim dalı başkanı onayı.
- 3 - Tez öneri formu.
- 4 - Araştırma önerisi içeriği.
- 5 - İngiliz dili eğitimi ana bilim dalı başkanı onay maili.
- 6 - Veri toplama araçları.
- 7 - Kitap izin onayı-1.
- 8 - Kitap izin onay maili.
- 9 - MEB ön başvuru formu.
- 10 - Taahhütname.

Appendix D. Research and Ethics Committee Permission



T.C.
ÇAĞ ÜNİVERSİTESİ
Rektörlük

Sayı : E-81570533-044-2200005532

27.07.2022

Konu : Bilimsel Araştırma ve Yayın Etiği
Kurul İzni Hk.

SOSYAL BİLİMLER ENSTİTÜSÜ MÜDÜRLÜĞÜNE

İlgi : a) 05.07.2022 tarih ve E-23867972- 050.01.04-2200005183 sayılı yazınız.
b) 18.07.2022 tarih ve E-23867972- 050.01.04-2200005309 sayılı yazınız.
c) 07.07.2022 tarih ve E-23867972- 050.01.04-2200005252 sayılı yazınız.

İlgi yazılarda söz konusu edilen **Zeliha Toprak Usta, Mehmet Nacar ve Yasemin Özbek** isimli öğrencilerimizin tez evrakları Bilimsel Araştırma ve Yayın Etiği Kurulunda incelenerek uygun görülmüştür.

Bilgilerinizi ve gereğini rica ederim.

Prof. Dr. Ünal AY
Rektör

Appendix E. Thesis Permission Request Letter



T.C.
ÇAĞ ÜNİVERSİTESİ
Sosyal Bilimler Enstitüsü

Sayı : E-23867972-044-2200005534
Konu : Mehmet Nacar'ın Tez Anket İzni
Hk.

27.07.2022

T.C. MİLLÎ EĞİTİM BAKANLIĞINA

İngiliz Dili Eğitimi Tezli Yüksek Lisans Programında kayıtlı **Mehmet Nacar** isimli öğrencimizin “**A Comparative Corpus-based Analysis of Complement ‘-ing’ Clauses Used in BNC and Coursebooks**” konulu tez çalışması Üniversitemiz öğretim üyelerinden **Dr. Öğr. Üyesi Zehra Köroğlu**'nun tez danışmanlığında halen yürütülmektedir. Adı geçen öğrenci tez çalışmasında **Bakanlığınız bünyesindeki tüm okullarda okutulan ders kitaplarının İngilizlerin gerçek hayatta kullandıkları dili yansıtır yansıtmadığını anlamak ve ders kitaplarındaki tümleş, "-ing" yan tümcelerin sıklığını görmek için ders kitaplarının ve İngiliz Ulusal Derlemini karşılaştırmayı** kapsamak üzere kopyası Ek’lerde sunulan veri toplama araçları uygulamasını yapmayı planlamaktadır. Üniversitemiz Etik Kurulunda yer alan üyelerin onayları alınmış olup, gerekli iznin verilmesini bilgilerinize sunarım.

Prof. Dr. Ünal AY
Rektör

Ek :

- 1 - 1 sayfa tez etik, anket izin istek formu.
- 2 - 1 sayfa İngiliz Dili Eğitimi Ana Bilim Dalı Başkanına ait tez etik, anket izin istek formuna dair onay imzası.
- 3 - 23 sayfa tez önerisi.
- 4 - 10 sayfa araştırma önerisi içeriği.
- 5 - 1 sayfa İngiliz Dili Eğitimi Ana Bilim Dalı Başkanına ait onay maili.
- 6 - 1 sayfa veri toplama araçları.
- 7 - 1 sayfa kitap izin onay yazısı.
- 8 - 1 sayfa kitap izin onay maili.
- 9 - 2 sayfa MEB ön başvuru formu.
- 10 - 1 sayfa Taahhütname.
- 11 - 1 sayfa tez etik izin istek yazısı.
- 12 - 1 sayfa tez etik izin yazısı.

Appendix F. Thesis Permission Letter



T.C.
MİLLÎ EĞİTİM BAKANLIĞI
Talim ve Terbiye Kurulu Başkanlığı

Sayı : E-96732399-605.01-55728817
Konu : Araştırma Uygulama İzni

23.08.2022

STRATEJİ GELİŞTİRME BAŞKANLIĞINA

İlgi : a) 01.08.2022 tarihli ve E-49614598-605.01-54460837 sayılı yazınız.
b) Bakanlığımızın 21/01/2020 tarihli ve 2020/2 Nolu Araştırma Uygulama İzni Genelgesi.

İlgi (a) yazınızla Çağ Üniversitesi, Sosyal Bilimler Enstitüsü İngiliz Dili Eğitimi Tezli Yüksek Lisans Programı öğrencisi Mehmet NACAR'ın "İngiliz Ulusal Derlemi ve Ders Kitaplarında Kullanılan "-ing-" Yan Tümcelerin Karşılaştırmalı Derlem Tabanlı Analizi" konulu çalışmasına veri sağlamak amacıyla anket çalışması yapma izin talebinde bulunduğu ve söz konusu çalışmanın ders kitabı inceleme çalışması olması nedeniyle Başkanlığınızca değerlendirilmesi gerektiği ifade edilmiştir.

İlgi (b) genelge çerçevesinde yapılan incelemede araştırmacının Bakanlığımız tarafından okullarımızda okutulması uygun bulunan ve İlgi (a) yazı ekinde yer alan İngilizce ders kitaplarını incelemesinin "uygun" olduğu mütalaa edilmiştir.

Bilgilerini ve gereğini rica ederim.

Prof. Dr. Cihad DEMİRLİ
Talim ve Terbiye Kurulu Başkanı

Appendix G. Coursebook Analysis Approval E-mail



15.03.2022

Sayın Mehmet NACAR,

Yayınevimize ait yazarları Neslihan Atcan Altan ve Müge Akgedik Can olan **Ortaöğretim Sunshine English 11** adlı ders kitabının, yüksek lisans tezinizde kaynak göstererek incelenmesinde herhangi bir sakınca yoktur.

Gereğini bilgilerinize sunarız.

Appendix H. Coursebook Analysis Approval E-mail

4/18/23, 1:10 AM

Gmail - Tezim için izninizi almak istiyorum



Mehmet Nacar <

>

Tezim için izninizi almak istiyorum

Yıldırım Yayınları <

Mon, Mar 7, 2022 at 4:50 PM

To: Mehmet Nacar <

Sayın Hocam;

Tez çalışmalarınızda "Gizem Yayıncılık "Ortaöğretim İngilizce 10" kitabımızı kullanabilirsiniz.

Mehmet Nacar <n

n>, 7 Mar 2022 Pzt, 15:38 tarihinde şunu yazdı:

[Quoted text hidden]