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**ERROR MAPPING AND REMEDIAL INTERVENTION REGARDING
ENGLISH TENSE – ASPECT STRUCTURES OF TURKISH EFL LEARNERS**

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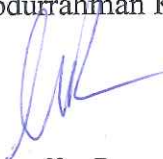
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Fatih Ünal BOZDAĞ

ABSTRACT**ERROR MAPPING AND REMEDIAL INTERVENTION REGARDING
ENGLISH TENSE – ASPECT STRUCTURES OF TURKISH EFL LEARNERS****Fatih Ünal BOZDAĞ****Ph.D. Dissertation, English Language Teaching Department****Supervisor: Assoc. Prof. Dr. Cem CAN****November 2019, 153 pages**

On account of cross-linguistic differences, language-specific characteristics, and mainly due to their internal complexity, English tense-aspect system remains to be one such area of language instruction, which presents great difficulty even for advanced level learners. Such a challenge to the acquisition of authentic use of target structures may be ascribed to descriptions of grammatical forms as presented in traditional reference/descriptive grammars. Reasonably often, tense-aspect forms are included in formal basis rather than meaning oriented schemas. Additionally, learners' native language may interfere with the acquisition of such structures. Though many forms included in English tense-aspect system have counterparts in other languages, there is no complete overlap among tense-aspect system across languages regarding how they are licensed regarding cross-cultural and intralingual differences. The descriptive and quasi-experimental design will be structured using both quantitative and qualitative methods. This study, primarily, scrutinized Cambridge English Corpus (henceforth CEC) to discover patterns of tense-aspect use and errors specific to Turkish EFL learners. CEC covers a body of error annotated learner corpora from various native languages. The study also focused on cognitive grammar stimulated classroom instruction in comparison to traditional grammatical teaching of English tense-aspect forms. Precisely, the procedure consisted of pre-test given one week prior to the treatment, and a post-test applied one week after the last treatment session. ANCOVA was carried out to investigate the participants' progress in learning the use of the tense-aspect structures of the target language. As a result of the study, it was observed that in the use of certain tense-aspect structures, differences in learners' level are of primary importance while similar situation is not valid for others. Additionally, regarding the

remedial teaching, mean exam scores of students who received cognitive grammar stimulated instruction were significantly higher when compared to students who received traditional grammar teaching in the learning of present simple and present progressive. On the contrary, no statistically significant difference was observed between two groups considering the teaching of past simple and present perfect.

Key Words: Tense-Aspect, Cognitive Grammar, Computer Aided Error Analysis, Classroom Teaching, Turkish EFL



ÖZET

YABANCI DİL OLARAK İNGİLİZCE ÖĞRENEN TÜRK ÖĞRENCİLERİN İNGİLİZCE ZAMAN-GÖRÜNÜŞ YAPILARIN HATA AYIRIMLAMASI VE DÜZELTMECİ GİRİŞİM

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Dillerarası farklılıkları nedeniyle, dil özelliklerine ve özellikle içsel karmaşık yapılarına bağlı olarak, İngilizce zaman-görünüş sistemi, ileri seviye öğrenciler için bile zorluk oluşturmaktadır. Hedef yapıların gerçek kullanımının edinilmesine yönelik bu tür zorluk, geleneksel referans / betimlemeli dilbilgisinde sunulan dilbilgisi formlarının birbirinden bağımsız tanımlamalarına atfedilebilir. Oldukça sık, zaman-görünüş biçimleri, anlam yöneltimli bütüncül düzen yerine biçimsel temelde yer almaktadır. Buna ek olarak, öğrencilerin ana dili, bu tür yapıların edinilmesine olumsuz etki yapabilir. İngilizce zaman-görünüş sisteminde yer alan pek çok biçim, diğer dillerde karşılıkları olmasına rağmen, kültürler arası ve dil içi farklılıklar dikkate alındığında, diller arası zaman görünüş sistemleri konusunda tam örtüşme yoktur. Bu çalışma öncelikli olarak betimlemeli ve yarı deneysel desen ile hem nicel hem de nitel yöntemler kullanılarak yapılandırılmıştır. Çalışma öncelikli olarak İngilizceyi yabancı dil olarak öğrenen Türk öğrencilerinin İngilizce zaman-görünüş kullanım örüntülerini ve yanlışlarını ortaya çıkartmak için Cambridge English Corpus incelemiştir. Cambridge English Corpus hata etiketlemesi yapılmış ve farklı anadil artalanlarından gelen öğrencilerden toplanan alt derlemler bütüncesidir. Çalışma aynı zamanda, İngilizce zaman-görünüş özelliklerinin öğretilmesi açısından bilişsel dilbilimi temel alan dilbilgisi öğretiminin, geleneksel dilbilgisini kullanarak yapılan öğretimin karşılaştırmasına odaklanmaktadır. Çalışmanın uygulama bölümü tam olarak, yöntem, dilbilgisi öğretimi sürecinden bir hafta önce verilen ön test ve son dilbilgisi öğretimi oturumundan bir hafta sonra verilen son testten oluşmaktadır. Toplanan veriler Kovaryans Analizi (ANCOVA) ile katılımcıların hedef dilde zaman-görünüş

özelliklerinin öğreniminde kaydettiği ilerlemeyi ölçmek için kullanılmıştır. Çalışmanın sonucu olarak, yabancı dil olarak İngilizce öğrenen Türk öğrencilerinin belirli İngilizce zaman-görünüş yapılarının kullanmasında öğrenciler arası seviye farklılıklarının etken olduğu gözlemlenirken, belirli diğer yapılar arası kullanım farklılıklarında öğrenci seviyelerinin etkisi olmadığı görülmüştür. Benzer şekilde bilişsel dilbilimi temel alan dilbilgisi öğretimi ile İngilizce geniş zaman ve şimdiki zaman yapılarının öğretilmesinde de öğrenci başarıları arası farklılıklar gözlenmiştir. Bu eğitimi alan öğrenciler ile geleneksel dilbilgisi eğitimi alan öğrencilerin sınav sonuçları karşılaştırıldığında, bilişsel dilbilgisi temelli eğitim alan öğrencilerin sınav puan ortalamalarının geleneksel eğitim alan öğrencilerin sınav puan ortalamalarından daha yüksek olduğu ortaya çıkmıştır. Fakat benzer durum geçmiş zaman ve yakın geçmiş zaman öğretiminde gözlemlenememiş olup, öğrenci puan ortalamaları arasında anlamlı farklılık bulunamamıştır.

Anahatar Kelimeler: Zaman- Görünüş, Bilişsel Dilbilimi, Bilgisayar Destekli Hata Analizi

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TABLE OF CONTENTS

	Page
ABSTRACT	iv
ÖZET	vi
ACKNOWLEDGEMENT	viii
ABBREVIATIONS	xii
LIST OF TABLES	xiii
LIST OF FIGURES	xiv
LIST OF APPENDICIDIES	xvi

CHAPTER I INTRODUCTION

1.1. Background of the Study	1
1.2. Statement of the problem.....	6
1.3. Purpose of the Study and Research Questions.....	7
1.4. Significance of the Study.....	8
1.5. Implications	9

CHAPTER II REVIEW OF LITERATURE

2.1. Error Analysis (EA).....	10
2.1.1. Definition of Error Analysis	10
2.1.2. Emergence of Error Analysis.....	11
2.1.3. Methodology in EA research	13
2.2. Corpus Linguistics and Learner Corpora.....	17
2.2.1. Corpus linguistics	17
2.2.2. Learner Corpora	18
2.3. Computer-aided Error Analysis	19
2.4. Cognitive Grammar and Pedagogical Applications.....	22
2.5. Tense and Aspect.....	25
2.5.1. Tense and Aspect in Turkish	25

2.5.1.1. Past and Nonpast Tenses in Turkish	26
2.5.1.2. Aspect in Turkish.....	28
2.5.2. Tense and Aspect in English.....	30
2.5.2.1. Past and Nonpast Tenses in Turkish	30
2.5.2.2. Aspect in English.....	31

CHAPTER III

METHODOLOGY

3.1. Learner Corpus and Quantitative Analysis.....	35
3.1.1. The Cambridge Learner Corpus	35
3.1.2. Turkish Subcorpus of CLC	36
3.2. Investigation of the Subcorpora and Quantitative Analysis	38
3.2.1. Descriptive Analysis	39
3.2.2. Cluster Analysis	40
3.3. Remedial Teaching	42
3.3.1. Participants.....	42
3.3.2. Method and Materials	43

CHAPTER IV

DATA ANALYSIS AND RESULTS

4.1. English Tense – Aspect Structures in Turkish EFL Learners’ Corpus.....	45
4.1.1. Distribution of English Tense – Aspect Structures across Three Learner Corpora.....	48
4.1.2. Distributions of Semantic Classes of Verbs Used in Six English Tense – Aspect Structures across three Learner Levels.....	50
4.1.2.1. Cluster Analysis of Semantic Classes of Verbs along with Six Tense – Aspect Structures across three Learner Levels	52
4.1.2.1.1. Distributions of Semantic Classes of Verbs along with Six English Tense – Aspect Structures in TRA1A2WrTv Corpus	54
4.1.2.1.2. Distributions of Semantic Classes of Verbs along with Six Tense – Aspect Structures in TRB1B2WrTv Corpus.	57

4.1.2.1.3. Distributions of Semantic Classes of Verbs along with Six Tense – Aspect Structures in TRC1C2WrTv Corpus.	60
4.2. Error Mapping of English – Tense Aspect Structures in Turkish Subcorpora	62
4.2.1. Lexical Verbs and their Semantic Classification in Erroneous English Tense – Aspect Structures across three Corpora	66
4.2.2. Correction for Erroneous English Tense – Aspect Structures across three Subcorpora	72
4.3. Remedial Teaching for English Tense Aspect Structures	79
4.3.1. Result of the Remedial Teaching of Present Simple and Present Progressive	79
4.3.2. Result of the Remedial Teaching of Past Simple and Present Perfect	82

CHAPTER V

DISCUSSION AND IMPLICATIONS

5.1. Discussion of the Findings	86
5.2. The Implication of the Study	103
5.3. Limitation of the Study and Suggestion for Further Studies	104
REFERENCES	106
APPENDICES	115
CURRICULUM VITAE	152

ABBREVIATIONS

ACT	: Activity Verbs
AH	: Aspect Hypothesis
ASP	: Aspectual Verbs
CA	: Contrastive Analysis
CLC	: Cambridge Learner Corpus
CMN	: Communication Verbs
CEA	: Computer Aided-Error Analysis
CG	: Cognitive Grammar
EA	: Error Analysis
ESOL	: English for Speakers of Other Languages
EFL	: English as a Foreign Language
EXT	: Existence or Relationship Verbs
FAC	: Factual or causation Verbs
LC	: Learner Corpora
MNT	: Mental Verbs
OCC	: Occurrence Verbs
PrsSIM	: Present Simple Tense
PrsPRG	: Present Progressive Tense
PrsPER	: Present Perfect Tense
PstSIM	: Past Simple Tense
PstPRG	: Past Progressive Tense
PstPER	: Past Perfect Tense
SLA	: Second Language Acquisition

LIST OF TABLES

	Page
Table 1. Overall Frequencies of Tenses in three Corpora.....	45
Table 2. Breakdown of Aspect Structure in three Learner Corpora	46
Table 3. Breakdown of English Tense - Aspect Structure in three Corpora.....	47
Table 4. Overall Frequencies of Errors across Tenses in three Corpora.....	63
Table 5. Frequency of Errors across Aspects in three Corpora	64
Table 6. Breakdown of Erroneous English Tense - Aspect Structure in three Corpora	65
Table 7. Cross Tabulation for Tense - Aspect Errors and Correction in the TRA1A2WrTv Corpus.....	72
Table 8. Cross Tabulation for Tense - Aspect Errors and Correction in the TRB1B2WrTv Corpus	74
Table 9. Cross Tabulation for Tense - Aspect Errors and Correction in the TRC1C2WrTv.....	76
Table 10. Means and standard deviations for both Groups for the First Tests	79
Table 11. Result of Adjusted Means of Test Performances of Learners for Present Simple and Present Progressive	81
Table 12. Post-hoc Analysis Results of Adjusted Means of Test Performances of Learners for Present Simple and Present Progressive.....	82
Table 13. Means and standard deviations for both Groups for the Second Tests.....	83
Table 14. Result of Adjusted Means of Test Performances of Learners for Past Simple and Present Perfect	84
Table 15. Post-hoc Analysis Results of Result of Adjusted Means of Test Performances of Learners for Past Simple and Present Perfect.....	85

LIST OF FIGURES

	Page
Figure 1. The Cognitive Model of Grammar (Langacker 1987: 77).....	22
Figure 2. Breakdown of Cambridge English Corpus	35
Figure 3. Breakdown of CLC, Turkish Subcorpus, and three Subcorpora	37
Figure 4. Overall Distribution of six English Tense – Aspect Structures across three Learner Corpora.....	48
Figure 5. Heatmap for Cluster Analysis Regarding Learners’ Levels and Tense – Aspect Distribution	49
Figure 6. Overall Distribution of seven Semantic Classes of Verbs across three Learner Corpora	51
Figure 7. Dendrogram for Cluster Analysis Regarding Semantic Classes of Verbs across three Corpora.....	52
Figure 8. Heatmap for Cluster Analysis Regarding Semantic Classes of Verbs and Tense – Aspect Distribution.....	53
Figure 9. Semantic Classes of Verbs and their Distributions over six English TAs in TRA1A2WrTv Corpus.....	55
Figure 10. Heatmap for Semantic Classes of Verbs and six English TAs in TRA1A2WrTv Corpus.....	56
Figure 12. Heatmap for Semantic Classes of Verbs and TAs in TRB1B2WrTv Corpus	59
Figure 13. Semantic Classes of Verbs and their Distributions over six English TA in TRC1C2WrTv Corpus.....	60
Figure 14. Heatmap for Semantic Classes of Verbs and TAs in TRC1C2WrTv Corpus	61
Figure 15. Heatmap for three Learner Levels and Erroneous six English TAs	66
Figure 16. Semantic Classes of Verbs and their Distributions over six Erroneous English TAs across three Learner Corpora.....	71
Figure 17. Test of Linearity Assumptions for Pretest and Posttest Between Groups.....	80
Figure 18. Test of Homoscedasticity across two Learner Groups for first Treatment	81

Figure 19. Test of Linearity Assumptions for Pretest and Posttest Between Groups.....	83
Figure 20. Test of homoscedasticity across two Learner Groups for Second Treatment	84



LIST OF APPENDICIDIES

	Page
Appendix 1 : Biber's (2006, p. 246, 247) List of Verbs across Seven Semantic Classes.....	115
Appendix 2 : List of All the Verbs Extracted from three Subcorpora	117
Appendix 3 : Distributions of Semantic Classes of Verbs Used in Six English Tense – Aspect Structures across three Learner Levels.....	121
Appendix 4 : Distributions of Semantic Classes of Verbs Used in Six English Tense – Aspect Structures across three Learner Levels.....	125
Appendix 5 : Distributions of Semantic Classes of Verbs Used in Six English Tense – Aspect Structures across three Learner Levels.....	129
Appendix 6 : Pre-Test and Post-Test for Present Progressive/Simple Present.....	133
Appendix 7 : Pre-Test and Post-Test for Present Perfect/Simple Past	137
Appendix 8 : Sample Materials for Cognitive Treatment.....	141

CHAPTER I

INTRODUCTION

This chapter of the dissertation includes the background of the study, the statement of the problem, the aim and the scope of the study, research questions, the significance, implications, and the limitations of the study.

1.1. Background of the Study

Referring to temporal relations and expressing the time are two essential traits of human cognition and language systems. Our representation system conceptually encodes events and situations in temporal relations as we speak of things that are in the past, present or future and events are either accomplished, ongoing or in a recurring pattern (Li and Shirai, 2000; Chan, 2012). Likewise, languages provide their speakers with a range of lexical and grammatical means of stating time encoded by speakers' conceptual system. Grammatical devices such as tense and aspect being at heart, specific characteristics lexical items carry along with a variety of adverbials and discourse principles consists of speakers' arsenal. (Klein and Li, 2009). Such devices are language-specific and distinctive on many levels; however, they share the fundamental purpose of expressing when something happened or will happen or is happening at the time of speaking. Also, they state if this is a recurrent event or happened or happening for the first time.

Tense and aspect are the two semantic notions rooted deeply in the grammatical system and encoded on verbs to express temporal meanings and relations. Tense is a deictic category, and it is one of the linguistic markings on verbs which relates to "the time of the situation referred to some other time, usually to the moment of speaking" (Comrie, 1976, p.II). In other ways, tense indicates temporality among events or locates a situation on a timeline. Aspect, however, "concerns the different perspective which a speaker can take and expresses with regard to the temporal course of some event, action, process, etc." (Klein, 1994, p.16) and moreover, characterizes "different ways of viewing the internal temporal constituency of a situation" (Comrie, 1976, p. 3).

Research on second language acquisition of tense-aspect system is modulated via both generative and functional approaches to language resulting in several hypotheses for temporality in learner languages. It is due to no single theoretical

approach is able to address a full account of Tense, Aspect and Modality (henceforth TAM) is dependent of various factors from many linguistic domains Ayoun and Rothman (2012). Therefore result is the research of various factors influencing second language acquisition of tense aspect structures being investigated via several different theories. Semantic factors are covered by the Lexical Aspect Hypothesis; following these contextual factors are within the paradigm of the Discourse Hypothesis, and input-based factors are the focus of the Distributional Bias Hypothesis and finally, syntactic factors are the subject of the UG-Minimalist Hypothesis.

To start with, analysis of pragmatic factors is not particularly based on a single theoretical approach. Yet it is claimed that “adults [. . .] do not deliberately attend to form, especially redundant and communicatively less important grammatical features” (Schmidt 1993, p. 145). When formal markings for temporal references are not stated, learners may utilize pragmatic devices such as; a) Discourse organization principles, and b) Implicit reference. Discourse organization principles mark the chronological order of the event in focus, learners’ utterances provide actual temporal ordering of the events. On the other hand, learners also may provide implicit temporal points based on the contextual data. Lack of morphosyntactic markings in learners’ utterances is compensated via adverbials, or sequencing of the events (Schumann, 1987).

Regarding semantic factors, The Aspect Hypothesis, also labeled as Lexical Aspect Hypothesis or Primacy of Aspect, (henceforth AH, Andersan and Shirai, 1994; Robinson, 1995; Bardovi-Harlig, 2000) focuses on the relationship between lexical aspectual features of verbs and tense-aspect morphology. Findings of these studies are in support of the findings from previous L1 studies scrutinizing developmental acquisition order as reflected on second language learning. It is argued that “correlation between tense/aspect morphemes and lexical aspectual classes are based on the Relevance Principle that is lexical aspect is more (i.e., aspect is more relevant to the meaning of the verb than tense, mood, or agreement are)” and “the Congruence Principle (i.e., learners choose the morpheme whose aspectual meaning is most congruent with the aspectual meaning of the verb)” (Ayoun and Salabery, 2005, p. 14). Therefore, temporal meanings of verbs imposed by their lexical aspects and their associations to tense-aspect morphology are similar and subsequent in both first and second language development. Such an approach states that during the early stage of interlanguage development, verbal morphology encodes only lexical aspectual distinctions rather than tense or grammatical aspect. As an example, within

interlanguage, developmental path regarding English tense-aspect is as “perfective past is first associated with [+punctual, +telic, +dynamic], whereas imperfective past with [-punctual, -telic, -dynamic]” (Li and Shirai, 2000, p.48). In other ways, learners associate past tense and perfective aspect forms with telic verbs (denoting end-point; e.g., build and reach), and progressive aspect with dynamic verbs (e.g., run and read).

Additionally, some researchers proposed that specific tense-aspect choices are influenced by the contextual factors such as genre, register or text type. Hopper (1982, p. 16) claims that “the nature of aspectual distinctions cannot be characterized by semantics in a consistent way; the adequate reference may only come from a global discourse function”. Studies in favor of The Discourse Hypothesis (Dahl, 1985; Hopper, 1979) investigate the distribution of tense-aspect morphology regarding structures of narrative that is, as claimed, beyond sentence level analysis. The results is that speakers of different languages employ tense-aspect marking to "mark out a main route through the narrative and divert in some way those parts of the narrative that are not strictly relevant to this route" (Hopper, 1979: 239). Hence, it is proposed that learners' narratives are of the evidence to grounding temporal points in narrative structures and tense-aspect morphology and interlanguage development observes linguistic universals for such process. Later on, there have been studies to incorporate The Discourse Hypothesis into Lexical Aspect Hypothesis, as both are in support of linguistic universal in tense-aspect interlanguage development. The Distributional Bias Hypothesis is the result of such attempts to incorporate above-mentioned two approaches. The claim is that interaction of lexical aspect and narrative grounding give rise to distributional bias in the input learners receive.

As for the syntactic factor influencing second language tense-aspect, Slabakova and Montrul (2002) argue that functional categories and their characterizations are a mean to cross-linguistics variations because of the distinctiveness of lexical and functional categories. Learners' use of the appropriate target language also indicates knowledge of the semantic properties and morphological norms as required by that language. In Slabakova (2000), research is in favor of L1 transfer, as the result of the aspectual interpretation task observed that both native speakers of English and Spanish EFL learners were able to identify the contrast between telic and atelic sentences whereas Bulgarian EFL learners failed to do so with accuracy. Slabakova argues that the result is due to native speakers of both languages prefer atelic sentences with habitual context rather than telic sentences. Further, it is tested if Bulgarian EFL are able to

acquire functional categories that do not exist in Bulgarian. It was found out that as learners' proficiencies levels up, they accurately map the semantic values with correct morphological inflectionals.

To sum, research on second language acquisition (henceforth SLA) of tense-aspect morphology has been influenced by studies of first language acquisition. Initial studies are reflected upon the developmental path children follow regarding the acquisition of their mother tongues. Same acquisitional patterns of linguistics system of temporality are also expected to emerge within learners' languages. In the search of linguistic universal as influencing factor, lexical aspectual and discourse related factors were investigated from many different perspectives. However, with a shift of interest, the influential view was that emerging interlanguage (Selinker, 1972) of the language learners indexes "remarkably similar developmental sequences or paths regardless of environment, instruction, or even first language or target language" (Binnick, 1991, p. 481). While studies on acquisitional order continue, the emphasis is now on the actual development progress of tense-aspect throughout proceeding interlanguage rather than the endpoint of language acquisition.

Recently, cognitive approaches to tense aspect and how they can be applied to the study of SLA are surfacing up to the field. Taking Cognitive Grammar (Langacker, 2000) as a point of departure, as a more comprehensive approach, it is emphasized that grammatical phenomena such as TA systems are meaningful rather than being rule-based structures. Cognitive Grammar treats language as usage-based, and it is an integral aspect of cognition. The notion of the construal has a pivotal role in Cognitive Grammar, and situations are reflected via elaborate cognitive construal (Niemeier, 2013). This framework emphasizes "how language is learned from the participatory experience of processing language during embodied interaction in social contexts where individually desired non-linguistic outcomes are goals to be achieved by communicating intentions, concepts and meaning with others" (Ellis, 2019, p.125). Consequently, as languages address both linguistic and non-linguistic outcomes in various ways, the acquisition pattern in interlanguage is mainly hindered by learners first language (Cadierno, 2008; Robinson & Ellis, 2008b) while they are also subject to discourse related factors forming the semantic frame of the lexical item and input influenced factors giving rise to grammatical constructions to being entrenched as conventional units.

This study prioritizes the effectiveness of applying Cognitive Grammar to interlanguage studies. Explanatory nature of CG may provide fruitful insights regarding emerging patterns both in learner and natural discourse and further aid learners with tools to enhance the learning process. As Masuda (2004) puts it out “L2 learners' patterns vary and could be drastically different from L1 patterns, but L2 patterns represent the learners' schemata which can be best accounted for in the framework of CG” (p.548). In brief, usage-based constructions are both results of and resulted from the interaction between lexical and grammatical aspect which then give rise grammatical forms that can be explained from concept-oriented view meaningfully and there would be no so-called exceptions. Language teaching and learning can benefit such descriptive and explanatory tools as "learning a foreign language will involve not only learning the forms of the language but simultaneously learning the conceptual structures associated with these forms" Taylor (1993, p.212).

Likewise, errors in learners' interlanguage can be thought of being products of interference from L1 or of a different conceptual knowledge giving rise to non-authentic patterns by language learners. In this regard, errors signify learners' competence in the target language as they are meant to present observable evidence to language proficiency. Analysis of empirical data consisting of learner-produced errors in the target language has led to a revival of *Error Analysis* (henceforth EA) which is principled scrutiny of learner errors in structuralist fashion. Prior to EA studies, Contrastive Analysis (henceforth CA) was accessible among second language studies which premise the first language influenced errors of target language forms. However, later studies under the EA framework postulated the idea of learner internal linguistics structure known as “interlanguage.” The term interlanguage is more comprehensive as it advocates linguistics system in the mind of second language learners' which is a separate system distinguished from both learners' first and target language yet to influence and to be influenced from both.

Both contrastive studies and error analysis have mainly focused on promoting effective syllabus design and teaching materials with an aim at “(i) identifying differences and similarities between mother tongue and target language, (ii) discovering recurrent patterns of errors, and (iii) in a later development, the ever-growing learner's “interlanguage”” (De Knop and De Rycker, 2008, p.9). Studies in the field yield a body of research, particularly on principled categorizations of learner errors in typological fashion. However, prominence of traditional contrastive studies and error analysis

research has been weakened over the years due to limitations in both methodological considerations and its scope explicitly emphasizing non-authentic, erroneous usages while disregarding non-use or over- and under-use of target forms or lexis (Dagneaux, Denness, Granger, 1998).

Nonetheless, from the 1990 and onwards, with the popularity of Corpus Linguistics and Learner Corpora studies, a newer paradigm in the research of EA has emerged as Computer-Aided Error Analysis (henceforth CEA) Dagneaux (1998). Heavily based on the methodology of corpus studies, CEA aims to give an impetus to error studies and overcome the limitations of traditional EA research. A change in the methodology has triggered the overall understanding in the field as now it is possible to eliminate deficiency in data collecting procedures via controlling and defining the factors influencing learner produced errors. Additionally, due to advancements in computer technology, unlike traditional EA studies, a considerable body of data can be archived, tagged, and analyzed with ease and accuracy from multi-dimensional perspectives.

1.2. Statement of the problem

On account of cross-linguistic differences, language-specific characteristics and mainly due to their internal complexity, English tense-aspect system remains to be one such area of language instruction presenting great difficulty even for advanced level learners (Bardovi-Harlig, 2000). Though many forms included in the English tense-aspect system have counterparts in other languages, there is no complete overlap among languages' tense-aspect system regarding how they are licensed regarding cross-cultural and intralingual differences. Additionally, a variation in verbal conjugation due to the semantic-pragmatic realization of tenses imposes another challenge to learners (Larsen-Freeman, 2000). Furthermore, for many cases, the realization of tense marker's function heavily depends on time adverbs. As an example, Turkish lacks any grammatical form addressing explicitly *Perfect* aspect in non-past time. Preferably, in Turkish suffix *-di* can be used to denote definite witnessed past along with the meanings mapped by *Perfect* aspect in English regarding the context and other particles in construction (Kornfilt, 1997).

Such a challenge to the acquisition of native-like use of target structures may be ascribed to exclusive descriptions of grammatical forms as presented in traditional

reference/descriptive grammars. Reasonably often, tense-aspect forms are included in formal basis rather than meaning oriented schemas. Even further, those schematically included explanations are not adequately and systematically inspired from or based on concurrent, coherent linguistics theories (Tyler, 2012). Moreover, Bielak and Pawlak (2013) claim that majority of grammars “may be labelled *structuralist-traditional*” as they utilize traditional terminology and “organization of the presented grammatical material” (Biber, 1999 as cited in Bielak and Pawlak, 2013, p.59) while they also “contain overwhelmingly more description of language facts than explanations thereof, and are full of taxonomies of various sorts” (Bielak and Pawlak, 2013, p.59).

On the other hand, considering adult second language “construction of the grammar often requires a revision of semantic/pragmatic concepts, along with what may well be a more difficult task of perceptual identification of the relevant morphological elements” (Slobin, 1993, p.242). Acquisition of a second language thus requires conventional constructions used by the native speaker to address specific linguistics means to be learned by non-native speakers. Learning a foreign language thus entails learning appropriate L2 ways of thinking-for-speaking, i.e., learning the particular verbalized orientation to experience encoded in the grammatical resources of the L2 and which may differ from the learners’ L1 orientation (Ellis, 1994, p. 125). Accordingly, learners’ inferences and inductions are more likely to be affected by transfer from L1 towards L2 (Ellis, 2006c). As a result, regarding difficulties for the acquisition of target language’s tense-aspect system, they also may be due to learners’ blending L1 and L2 constructions within their interlanguage concluding in sometimes odd or erroneous outcomes and mostly non-convention usages in L2.

1.3. Purpose of the Study and Research Questions

The primary aim of the study is to scrutinize error tagged learner corpus to dwell more into actual instances of learners’ written productions and trace use of tense-aspect structures. It is aimed to provide descriptions and explanations to the nature of such usages and a possible source of errors provided in the data from a Cognitive Grammar perspective. Next is to reflect the CG-based insights and CG-inspired presentations to the remedial treatment applied to language instructions. While the prominence of CG applied to pedagogical grammar was tested out, it was also compared and contrasted with traditional descriptions. The experimental part of the study examined whether this

relatively new description of grammar can promote teaching and learning of the target grammar, and furthermore, whether CG-oriented or traditional insights into target grammar are more effective in the second language learning process. Therefore, the research questions the study was structured to address are as follows:

RQ 1 : What are the most common English tense-aspect constructions used by Turkish EFL learners in their written productions?

RQ 2 : Which are the most error-prone English tense-aspect constructions as used by Turkish EFL learners in their written productions?

RQ 3 : RQ 3: Is there a difference between grammar teaching based on CG informed descriptions of tense-aspect system and the one based on traditional descriptions grounded in pedagogical grammars in teaching?

The study is centered around the initial corpus investigation and CG-oriented descriptions and applications. Computer-Aided Error analysis is the primary research tool to map learner errors. This quantitative part of the study covers, in a typological sequence, investigation of tensed verbs marked for aspect along with scrutinizing of errors.

1.4. Significance of the Study

The study of tense and aspect structures from the perspectives of both cognitive grammar and computer-aided error analysis have not been extensively targeted in studies of second language acquisition. This study, initially, will scrutinize a body of error annotated learner corpus to discover patterns of tense-aspect errors specific to Turkish EFL learners. The study will also focus on Cognitive Grammar inspired instruction in comparison to traditional grammar teaching of English tense-aspect. Precise importance will be given to form-focus-instruction detailing form and meaningfulness of grammatical structure of English tense-aspect system. Eventually, the study is an attempt to state the effectiveness of Cognitive Grammar applied to second language learning and teaching. Within the framework, the research questions merits of applicability of CG that is potentially suitable for pedagogical grammar with its premising extensive semantic analysis with a focus on meaningfulness of all grammatical components. There is a growing interest for quite a long time in terms of

both theoretical and empirical studies regarding the application of CG to second language acquisition. Of these studies, this research is specifically constructed upon applied cognitive grammar analysis of English tense-aspect system by Langacker (1987; 1991; 2008), Li and Shirai (2000), Radden and Dirven (2007) and Brisard (2013). Additionally, pedagogical techniques and applications utilized in the study were adapted from Holmes (2005), Niemer and Dirven (2001), Niemer (2013) and Turewicz (2000; 2007).

1.5. Implications

Throughout the study, it was aimed to implement practical use of computer-aided error analysis to both exploratory interlanguage analysis and in-class use for second/foreign language teaching environment. Error analysis is a powerful tool for teachers and researchers alike to observe learners' development during the language learning process. It is possible to gain in-depth insights regarding learners' difficulties on a specific subject be it grammatical development, lexical knowledge, or even pragmatic use of language. In further analysis, the same set of analysis can also be applied to individual learners to evaluate individual progress or within-group comparisons. Therefore, it is also a way to base teachers' observation of their students to an empirical base.

It was also observed that, in accordance with the other studies, Turkish EFL learners have difficulty in mastering particular English tense-aspect structures and these difficulties persist even with Advanced level learners. Additionally, in many cases, non-authentic uses of tense – aspect structures with inappropriate verb choices were observed. Therefore, keeping in mind, teachers are advised to take into consideration contextual and learners related factors in teaching of English tense-aspect structures

Additionally, remedial teaching section tests a new paradigm for the description of grammatical rules and their relations with lexical items. Teachers are in need of alternative approaches regarding their learners' needs are suggested to initialize this new paradigm of grammatical descriptions along with means and materials., particularly regarding peripheral uses of certain grammatical forms.

CHAPTER II

REVIEW OF LITERATURE

This chapter of the dissertation includes a general view of Error Analysis and how it is evolved through Corpus Studies to Computer-Aided Error Analysis. Then it presents Cognitive Grammar and Tense-Aspect Systems. Finally, a review of studies in SLA considering TA systems is handled with regarding different theoretical views.

2.1. Error Analysis (EA)

The practice of collection, topological classification, and analysis of learners' outputs in the second/foreign language learning environment has been around in language classrooms since the 1950s. However, in the following years, the study of errors in the context of foreign/second language learning and teaching acquired a more substantial role as the direct outcome and application of Chomskyan concepts of linguistics and relevant psycholinguistics development in language acquisition research (Corder, 1967). Conscientious methodologies for EA was developed and applied to issues and questions regarding second language acquisition. Still, in 1980s criticisms against EA paradigm was outspoken to target the methodological weakness of the practice in which it fails to account for learner errors in a holistic view. However recently, EA model is thought to have a kind of revival with the support from corpus studies in its new form. Therefore, this section aims to conceptualize EA in the historical course of development and further explore the scope of the error analysis practice in the context of second language acquisition.

2.1.1. Definition of Error Analysis

Within the context of second language learning and teaching, the term error commonly refers to learners' nonstandard utterances either written or spoken in the target language by the learner. However, boundaries among terms like error, mistakes, or slips are not clear-cut, and it is still open to dispute. During the development of Error Analysis practice, there have been many attempts to differentiate the terms and contextualize a rigorous methodology for practice. According to Corder (1981), the key concept in defining what an error is and how to distinguish it from the mistake is that

learners use a particular system in the course of language development and that is different from both his first language and the target language. Initially, Dulay (1982, p.138) stresses that “Errors are the flawed side of learner speech or writing” and they are distinguished from mistakes and slips which are “product of chance circumstances” in that errors are “deviations which reveal the underlying knowledge of language to-date” (Ghadessy, 1980, p. 96).

Furthermore, Lennon (1991), defines learners’ error as “a linguistic form or combination of forms which in the same context and under similar conditions of production would, in all likelihood, not be produced by the speakers’ native counterparts.” Likewise, “a mistake refers to a performance error that is either a random guess or a ‘slip’, in that it is a failure to utilize a known system correctly” and “mistakes, when attention is called to them, can be self-corrected” (Brown, 2000, p. 217), and they are mostly recognized by the speaker immediately and corrected with less complete assurance (Corder, 1981). In this regard, Brown highlights that “mistakes must be carefully distinguished from errors of a second language learner” (2000) and defines an error as “a noticeable deviation from the adult grammar of a native speaker” however, mistakes or slips are of the situational faults reflecting linguistic performance affected by physical or psychological states during on-stage processing, and they are non-systematical (Corder, 1981).

Finally, describing the key terms and setting the criteria for the terms error and mistake James (2013) refine the definition of error in a holistic view as “being an instance of language that is unintentionally deviant and is not self-correctible by its author.” Learner-generated sequences are the result of learners utilizing a definite system from the beginning of their foreign/second language learner where they have no knowledge or command of the target language, and they gradually move toward from their first language to the second language. A learner’s errors, then, “provide evidence of the system of the language that he is using (i.e., has learned) at a particular point in the course” (Corder, 1981, p.11) and they are fundamental to language learning and necessary components of language acquisition.

2.1.2. Emergence of Error Analysis

Prior to Error Analysis, the original idea of analyzing deviances sourced out of Contrastive Analysis (CA) studies of which the central objective is to reveal differences

and similarities among languages and cultures. From the 1940s towards 1960s, under the heavy influence of Behaviorist psychology, language teaching and learning practices were backed by the structuralist notion. Similarly, Contrastive Analysis, with the structuralist framework, was (and still is) “a linguistic enterprise aimed at producing inverted (i.e., contrastive, not comparative) two-valued typologies, and founded on the assumption that languages can be compared” (James, 1980, p.3). Concerning second language learning and teaching, compared languages are learners’ first language and target language he/she is practicing. Fries states that (1945, p.9) “The most effective materials are those that are based upon a scientific description of the language to be learned, carefully compared with a parallel description of the native language of the learner.” The procedure of comparing two languages initially consists of providing detailed descriptions of the comparable feature of both languages be it grammatical or pragmatic ones or even cultures differences reflected upon the languages. Next, it is followed by the practice of spotting and mapping mismatches; therefore, it will be possible to predict problems that a learner may face learning and practicing the target language. The expected outcome of such a comparison would aid in preparing remedial syllabuses and practical materials for learners.

However, “by the early 1970s, some misgivings about the reliability of Contrastive Analysis began to be voiced, mainly on account of its association with an outdated model of language description (Structuralism) and a discredited learning theory (Behaviorism)” (James, 1980, p. 4). CA was profoundly criticized for two significant aspects, first of which is its unreliability on the predictability of learner language. As errors that CA practice formulated was not new to teachers and therefore uninformative and also these errors were not omnipresent in learner language (i.e., Interlanguage). Secondly, the methodology applied for the pedagogical use of CA was not feasible, and extensive comparison of target languages and first language(s) of learners was not easy for the teacher. In an actual language classroom, there may be students from various first languages. Consequently, the idea of identifying difficulties learners already have or may have on the basis of comparing languages was unproductive.

As a result of CA’s failure to account for pedagogical practices, EA paradigm flourished with the aim of identification and remediation of learner errors, which also offered a rigorous methodology for scrutinizing learner language and gather data to structure the language items for teaching and learning (Ellis, 1994). EA was not

dissimilar to CA in terms of comparing languages. For this case, the practice utilizes analysis of interlanguage, which is the learner's version of the target language and comparison of it to actual the target language. Corder (1982, p. 27) clarifies the primary objective of the EA research as stating, "the process of learning would seem, therefore, to be most fruitful if we could discover as a first step the correlations between the nature of the data presented with the state of the learner's grammar." EA paradigm discourages referring to first language norms and emphasizes the examinability of the second language errors in terms of target language norms along with other factors which may influence learners to produce erroneous utterances. Moreover, in one of its revised versions, Harper (1962) claims that "once a mistake has been made in an L2, to describe it and tabulate it and describe it is possible to in terms of L2 alone" (p.19). EA research suggests that errors are due to not only attribution by the learner to his/her first language, yet they may also be due to learners' strategies to learning languages, incomplete rule application, lack of necessary in-class-instruction in terms of quality and quantity, etc.

EA is different from CA as it profoundly deals with the very notion of errors regarding their classification and importance for the learners' development towards target language grammar. However, disregarding learners' first language influence on the interlanguage was claimed to be wrong for some cases, therefore rather than taking CA out of interlanguage analysis as a whole, now it is incorporated into EA as a tool to give way to description and explanation of transfer-based-errors (James, 2013). Now process consists of comparing learner language to their mother tongue, not a comparison of learners' first language and the target language.

To sum up and finalize the current section before providing further about EA paradigm, it is both reassessment of CA domain and Interlanguage studies. Therefore, EA is not only a set of tools and procedures to collect samples and analyze errors, instead, but it is also trying to explore and understand the underlying causes that lead learners to deviances.

2.1.3. Methodology in EA research

Many studies on learner language have used these steps to analyze learner errors in the 1970s. In fact, according to Ellis (1994), EA was one of the first methods used to investigate learner language, which achieved considerable popularity in the 1970s,

replacing contrastive analysis. More importantly, there was a boom in EA research in those years. Many researchers attempted to discover more about second language learning through the study of learners' errors, especially with the desire to improve pedagogy. This popularity gave impetus to EA studies, which in turn resulted in EA to incorporate various tools and have a frame for interlanguage analysis applied in typological stages.

Theoretical foundations of EA as currently applied within SLA paradigm was established by Corder in late 1970 with a shift of interest from the investigation of potential errors learners are expected to commit to the exploration of actual errors learners produce. Corder (1971) refutes the idea that process of acquisition of primary language and a second language is fundamentally same as the behaviorist view claims it, however, the underlying mechanism of acquiring a language along with procedures and strategies are the same for both. There has also been a shift of focus from teaching towards student along with Corder's (1971) criticism of seeing classroom data available to the learner as input. He stated that "what goes in" is not always "what is available for going in" (Corder, 1971, p. 9) emphasizing that it is the learner who controls the input, his/her intake, a process determined by his characteristic of language acquisition mechanism. Therefore, Corder (1971) proposed his analytic framework for the analysis of learner errors, which is expected to, in turn, yield the very nature of underlying language learning systems. This framework consists of five building blocks for scrutinizing learner errors as follows; (James, 1998, p,12)

The first is as suggested by Corder (cited in James, 1981, p.12) "we should look for parallels between L1 acquisition and L2 learning since these are governed by the same underlying mechanisms, procedures, and strategies. The second one is that input is not to be confused with the intake as chunks of language learners are exposed to are not always initialized as they are, rather they are processed by learners' in-built syllabus. Errors are, therefore, to provide evidence to such a system. Next, errors represent that learners are both induced by their first language and the target language. Their performance in target language carries traces of an emerging independent language organization that is "not the adult system nor that of the second language" (Corder, 1967, p. 166). Also, Corder (1971) emphasizes the difference between errors and mistake as mistakes can be recognized by the learner and corrected online, and also, they are the result of psychological and physiological factors. However, errors are more to do with the process of acquisition/learning and are the result of the built-in language

system in learners' mind. Lastly, errors are of the primary importance as they inform teachers what is needed to be taught, they also provide data to researchers investigating how learning proceeds regarding second/foreign language learning as well as being a ground where learners are free to test their hypotheses of language learning. Based on the framework provided by Corder (1971), Ellis and Barkhuizen (2005, p.57) set forth the steps for initializing error analysis;

- Collection of a sample of learner language
- Identification of errors
- Description of errors
- Explanation of errors
- Error evaluation.

The opening step in EA is the collection of learner language. When collecting data, one has to consider what the purpose of the study is and then try to collect relevant data for the study's aim and research questions that need to be answered (Ellis & Barkhuizen, 2005:57). First of all, a big sized data is a collection of samples of a large number of learners to deliver a comprehensive list of errors which are representative of the entire population. On the other hand, a specific corpus consists of only one sample of language use collected from a limited number of learners. Finally, an incidental sample is one sample of language use produced by a single learner. The second step in EA process is the identification of the errors. In this step, Ellis & Barkhuizen (2005) suggest referring to the different sources of authentic language use for the target language. As an example, if the overall aim is to explore learners' written production, a grammar book may come in hand to assess errors. However, if the aim is to question learners' errors within spoken productions, one has to consider the variety of English the learners are exposed in terms of dialect, register, and style. In Corder's term (1971) learners' version of the target language and the version of the native speakers of that language are "co-dialects." Therefore, as both versions are the co-dialects of the same language, they can be described in terms of the same grammar. Next step is the description of errors and Corder writes that in order to describe an error one has to specify how the English learners' error differs from the native speakers (cited in Ellis & Barkhuizen 2005:60). The EA literature reveals extensive studies on the various

classifications of errors; however, more up-to-date one regarding categorization of the grammatical errors are hypothesized by (Ellis & Barkhuizen, 2005) as follows;

1. Errors of omission: when the learner has left out a word, e.g., “My sister happy.”
2. Errors of addition: when the learner has added a word or an ending to another word which is grammatically incorrect, e.g., “I have eated.”
3. Misinformation/Substitution: when the learner uses the wrong form of a morpheme or structure, e.g., when they use the wrong preposition in a sentence such as “It was the hardest time in my life.”
4. Misordering: e.g., when the learner places a morpheme incorrectly in a grammatical construction such as “She fights all the time her brother.”
5. Blends: when the learner is uncertain of which word to use and blends two different phrases, e.g., “The only one thing I want.”

Ellis & Barkhuizen (2005:61)

Furthermore, classification can be done with a taxonomic view of the errors based on the linguistic category classification. This type of analysis carries out the specification of errors in terms of linguistic categories (James, 1981). In such a taxonomy, the researcher starts with the location of the error within the structures and defining the level as it is either phonological, grammatical or lexical, etc. Next, it is followed by the specification of the linguistics category; if it is a grammatical one, relevant constructions are listed as passive constructions, sentence complements, etc. Within these constructions, a class of deviant items is provided as a noun, verb, adjective or adverb, etc. James (1981) states that also, these errors are required to assign a rank considering the hierarchy of units. Finally, the last step is specifying the deviant grammatical system: tense, voice, number, transitivity, etc.

In contrast to the descriptive properties of the framework, which is specified step by step in a clear manner, applicability is not unproblematic as types of errors usually overlap to one another. In some cases, a structure can have two different readings, and likewise, it can yield various types of errors depending on the interpretation. Therefore Ellis (1994) highlights that both categorization and explanation of the errors are based upon the researcher’s reconstruction of the sentence.

The fourth step in EA entails possible explanations to sources of the errors and their causes. Initially, James (1985) listed four main diagnosis-based categories of

learner errors ('interlingual,' 'intralingual,' 'strategy- based,' and 'induced errors'), which he expands further into various sub-categories. Similarly, Brown (2000) categorized the sources of errors into: 'interlingual transfer,' 'intralingual transfer,' 'context of learning,' and 'communication strategies.' (p.223-227). More recently, Ellis & Barkhuizen (2005) stated that there are two primary sources of errors as psycholinguistic which is related to cognitive processing of languages, and also sociolinguistic one regarding communicative intentions employed by the learners. They later sub-categorized errors with more details regarding error categories.

The final stage in error analysis is the evaluation of errors to aid language pedagogy. Error analysis is to provide a rich source of data in identifying learners' need accurately also overcoming methodological difficulties in assessing these needs and therefore, to offer fruitful syllabus. In Corder's term (1971) error analysis's prominent role in the language learning process is to determine if there is such a built-in learner-generated sequence. Indeed, he claims so, and error analysis has played its part in unveiling such a system; thus next step is to prove the efficacy of learner-generated sequences than the instructor-generated syllabus. The outcome is expected to help teachers enhance their teaching and guide learners towards exploring the very nature of language learners are learning.

In brief, "Error analysis (EA) is an area of applied linguistics and second language acquisition (SLA) that deals with the systematic and methodical collection and documentation of the second language (L2) errors in learners' language production" (Hinkel, 2018, p.1). However, methodological issues led to error analysis to lose its popularity and fade its application in second language acquisition. Later on, in the field of language studies, it emerged within new paradigms in search of assessing and measuring learners' performances. As a result of the advances brought about by computer analyses of learner language, Computer-aided Error Analysis, which is heavily biased on Corpus Linguistics studies, (CEA) proliferated with new understandings and promises to the investigation of learner language.

2.2. Corpus Linguistics and Learner Corpora

2.2.1. Corpus linguistics

Corpus linguistics is a mean of carrying out linguistic analyses utilizing electronically stored archives of naturally occurring language utterances. McEnery and

Wilson (2001: 2) designate ‘corpus linguistics’ as “the study of language based on examples of ‘real-life’ language use” and further they state that corpus linguistics “is a methodology rather than an aspect of language requiring explanation or description.” However, it can be taken to any field of linguistic studies, therefore, to be labeled as “corpus-based.” As a method of investigating naturally occurring data from large amounts of linguistic resources, corpus studies use software that selects, sorts, compiles matches, counts and calculates utterances, therefore within the context of contemporary linguistic, the methodology refers to scrutinizing machine-readable, authentic texts which is sampled to be representative of a particular language or language variety (McEnery et al., 2006)

McEnery (2001) explicates the nature of Corpus Linguistics emphasizing the importance of empirical studies. Likewise, Aston (cited as Viana & Zyngier & Barnbrook, 2011, p.1) also acknowledges that “corpus analysis has provided an empirical basis for much contemporary research on language, employing data-based methods which emphasize statistical regularities rather than combinatory rules.” Therefore, bits of natural language as used by the speakers of that language promotes researchers towards objective analysis and premises.”

Various types of corpora, along with a vast amount of language data, enables researchers to investigate what is not readily available to observe with artificial utterances created upon rule-based view. This new mass quantities of natural language provide new information and realms about the grammar and lexis which in turn endorse updated dictionaries, descriptions of linguistic behavior of speakers, grammatical analysis of rules in use, and further language-teaching and learning materials. Within the field of second language learning/teaching, corpus studies emerge as a discipline in its own right, learner corpus research. In addition to having all other characteristics covered by corpus studies, the only difference in learner corpora is that data comes from archives of learner languages.

2.2.2. Learner Corpora

Learner Corpora (LC) or Computer Learner Corpora (CLC) (Granger, 1998), as its name suggests, are digital collections of second/foreign language texts produced by learners (Leech, 1998). Initially, the collection of learner-generated utterances refers to EA period (Granger, 2007). However, as the current definition suggests, LC differs

substantially from its ancestors as it is now more much systematical; learner data gathered for corpora are assembled based on explicit design criteria. To start with, data is natural as it is used by the learner in a natural setting. Although learner languages carry some degree of artificiality (Granger, 2002), learners are given a chance to perform language either spoken or written as they use rather than providing prompts to researchers' interest. Next is, archives consist of large amounts of both oral and written outputs, which makes it available to analyses interlanguage feature that was not possible before.

Research of learner corpora is in the middle of various yet related disciplines such as linguistic theories, natural language processing, language pedagogy, and second/foreign language learning/teaching. Linguistic theories give rise to exploitation of the learner data in various ways and for many cases, provide the backbone of the interpretation of the data. Natural language processing provides a solid background for collection, annotation, and investigation of the corpora. Furthermore, learner corpora are open fields to language pedagogy and SLA/FL learning and teaching as it is useful to testify theories and confirm or disconfirm hypothesis within the fields. Additionally, corpus data can contribute to the production of better language learning tools and methods.

In terms of linguistic analysis of the learner data, it usually “involves one of the following two methodological approaches: Contrastive Interlanguage Analysis (CIA) and Computer-aided Error Analysis (CAE)” (Granger, 2002, p. 12). CIA involves both quantitative and qualitative comparisons between (a) native and non-native data or (b) different varieties of non-native data, from learners with different mother tongue” (Mendikoetxea, Bielsa and Rollinson, 2010, p. 182). On the other hand, CAE consists of the analysis of errors in interlanguage and utilizes a variety of computer-aided tools to tag, retrieve, and investigate these errors.

2.3. Computer-aided Error Analysis

The methodology of CEA, as mentioned before, carries the traces of traditional error analysis regarding the overall aim of analysis learner errors and procedures approaching them. Although the paradigm of traditional error analysis is out of favor today, analysis of learner errors remains a vital position as errors are “an important key to a better understanding of the process of L2-learning” (Ringbom, 1987, p.69).

Therefore, with the impetus aided from corpus research and possibilities of learner corpus studies, CEA is now centralized in the modern error analysis studies.

Despite the common aim, CEA is significantly dissimilar to the previous, much-criticized practice of analysis, as CEA utilizes different kind of material that is an extensive computerized collection of authentic learner material which is investigated with the reformulation of error taxonomies. Granger (2013) emphasizes the importance of the computerization process as it makes possible data and the whole process of error analysis to be more flexible, manageable, and efficient. Furthermore, CEA “involves a higher degree of standardization” and “errors are presented in the full context of the text, alongside non-erroneous forms” (Granger, 2002, p.10).

CEA initially starts with the collection of learner language with a high degree of standardized procedures, clearly defining learners’ background information such as age, gender, first language or knowledge of another language, etc. Furthermore, some corpora can provide more detailed information on the learners’ experience of second/foreign language learning. Additionally, learner samples are either from spoken or written sources with identified discourse features such as conversation or storytelling for spoken corpora and argumentative essays or prompts to the open-ended questions, etc. Many possibilities are available for the researchers regarding the overall purpose of the research.

Next is the annotation of the sample and error tagging. The raw data can be annotated or tagged for various linguistics aspects including part of speech tagging, syntactic and/or semantic tagging, annotation according to discoursal or prosodic features. While the initial annotation process is handled via computerized means with ease of speed and accuracy, error tagging is more painstaking and open to subjectivity. In this case, Granger (2002) acknowledges the following two steps, first of which is to “simply selecting an error-prone linguistic item and scanning the corpus to retrieve all instances of misuse of the item”. Much available text retrieval software can be utilized to count words and measure collocates or patterns as used by learners. Second of the methods requires “devising a standardized system of error tags and tagging all the errors in learner corpora, or at least, all errors in a particular category” (Granger, 2002, p.14). In the current paradigm of usage-based approaches, it is claimed that error taxonomies should be grounded on the description of observable data and include well-defined linguistic categories to minimize subjectivity in the process of error diagnosis and categorization (Diaz-Negrillo and Fernandex-Domingues, 2006, p. 86).

On the other hand, there are many ways and means of scrutinizing learner data, which mean a variety of possible error tagging system. Although there are observable commonalities among different studies, researchers most likely to apply their own set of tagging schema. Design criteria of tag-sets are generally up to studies' primary purpose to document errors regarding their nature like grammatical, lexical, etc or their sources either interlingual or intralingual. All in all, in the face of emerging varied approaches to error annotation, along with specific tagset and taxonomies, comprehensive systems are offered covering a broader scope of erroneous usages in learner corpora aiding the researchers to initialize concerning their corpus at their hands and their research aims.

Annotation of the aggregate data is a time consuming, labor work, however, once errors are fully tagged, "error tags can be retrieved with the aid of software retrieval tools and analyzed quantitatively and qualitatively according to the researcher's interest" (Díaz-Negrillo and Fernández-Domínguez, 2006, p.86). Resultantly, the findings can be integrated into several pedagogical appliances from designing materials and books to providing empirical insights and guidance to teachers. CEA is a powerful mean for language teachers and researchers alike for diagnostic and remedial purposes. Finally, the methodology can also be implemented in the classroom for data-driven learning.

To sum up, the whole process of CEA is broken down to five steps (Dagneaux et al. 2009, p.43)

1. Elaboration of an error tagging system
2. Manual correction of L2 corpus
3. Insertion of error tags and correction in the text files
4. Retrieval of lists of specific error types and error statistics
5. Concordance-based linguistic analysis of major error types

CEA constitutes a crucial step toward the development of an updated version of error analysis methodology. It surmounts the flaws in the building block of traditional error analysis as it is based on extensive and well-constructed datasets of authentic learner language. Additionally, in terms of the development of error annotation systems, it is grounded on the well-documented and defined usage-based, descriptive data. Finally, rather than structuring errors in isolation, CEA contextualizes text and analyze errors with its surrounding context.

2.4. Cognitive Grammar and Pedagogical Applications

Cognitive grammar is a usage-based model of linguistic structure, in which linguistic units are seen as being abstracted from usage events by the reinforcement of recurring commonalities (Langacker 2006, p.1). The major principle underlying the notion of Cognitive Grammar is that there is no universal grammar. However, conventionalization of language-specific shared image-schemas among the speakers of that language gives rise to the grammar of that language. Furthermore, the grammar of that language is indispensable from the lexis. Langacker (2000a) propose the term *symbolic unit* that is grammar is symbolic as it is a combination of syntax on the one side of the continuum, semantic on the other. In this process, the primacy of meaning is emphasized as this notion is reflected upon to gamut of meaningfulness of grammatical units. Meanings as Langacker defines it, concepts in the mind and forming of grammatical units start with the codification of a semantic unit over a linguistic expression. Additionally, semantic units, therefore, grammatical concepts are context bounded as they are outputs of an online progressing of usage event. Target structures are formed within these specific situations and they are used to address a particular purpose. Finally, constructions entrenched enough are conventionalized and be a part of the collective mind of the speakers of that language. In short Langacker (2008, p.25) expresses that “the linguistic knowledge we ascribe to speakers should be limited to elements of form and meaning found in actually occurring expressions, or which derive from such elements via the basic psychological phenomena ... association, automatization, schematization, and categorization”

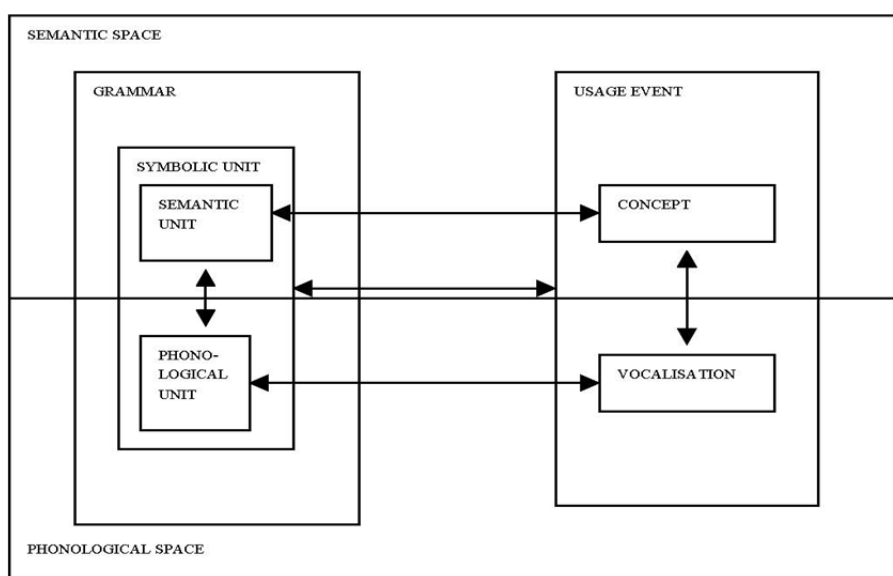


Figure 1. The Cognitive Model of Grammar (Langacker 1987: 77)

Figure 1 represents the Cognitive Model of Grammar in Langacker's Cognitive Grammar. With a hierarchical view, Cognitive Model consists of two *Spaces*, one of which is *Phonological* and the other is *Semantic*. On the continuum, *Semantic Space* includes *Grammar* and *Usage Events* and *Phonological Space* covers *Phonological Units* and *Vocalization*. *Semantic Unit* and *Phonological Unit* are interrelated and they relate with *Concept* and *Vocalization*, which are defined in *Usage Events* forms the *Symbolic Units* which in turn, with the degree of well-formedness, forms the *Grammar*. All the items are depended upon each other and they are not distinct objects rather connected pieces on an assembly line.

Regarding reflection of Cognitive Grammar upon second/foreign language learners, Langacker (2006) sounds the criticism that one cannot completely be ever fluent in any language simply by complete mastery of all the linguistic rules and learning of masses of vocabulary. However, he states that (2006, p. 2) "to achieve fluency, one has to learn besides a vast store of fixed expressions and normal ways of phrasing things in particular circumstances, out of all the ways "rules" in principle permit". Only by controlling this immense inventory of *conventional expression* and *conventional modes* of expression is it possible for speakers to put together a continuous flow of complex expressions in real-time (Langacker, 1987a, p. 36). Furthermore, as stated earlier, Cognitive Grammar is concerned about the role of the communicative, social and cultural context as *Grammar* is language-specific and specific to members of community speaking that language. It is unavoidable that any linguistic units have to be interpreted with respect to the context it is relevant to.

Application of Cognitive Grammar inspired teaching is relatively new in the field. Indeed, there are other approaches has been applied in the EFL which are thought to be similar to Cognitive Grammar due to aiding learner process with various visual mediums. However, the very basic tenet of Cognitive Grammar in applying drawings or other related visual means is to promote schematization of grammatical forms in question. Langacker (2008a) states: "The actual intent of these diagrams is [. . .] to allow certain facets of the conceptual organization to be represented in a format that is both user-friendly and explicit enough to serve as a basis for semantic and grammatical analysis" (p. 12). In many cases, application a sort of pictorial representations to express a kind of analogy between objects in the analysis is fundamental in Cognitive Grammar inspired teaching (Holme, 2009). Kermer (2016) acknowledges that these pictorial representations, non-verbal clues, "reflect the sensory imagery in our mental

representations” (p.109). Visual aiding in language teaching is supported and applied in many studies. In a similar vein, in Biealk and Pawlak’s (2013) study of applying Cognitive Grammar inspired teaching, participants confirmed the effectiveness of visuals on the learner process, evaluated by questionnaires and free-form feedbacks. Additionally, Niemeir and Reif (2008) suggest the utilization of visual aids which helps “learners to trace the conceptual organization process behind utterances” (as cited in Kermer, 2016, p. 110)

Additionally, as a usage-based approach to grammar, contextualization is crucial in Cognitive Grammar-based teaching. As symbolic units are processed online in usage events where concepts acquire their semantic representations, conventionalized units are indeed authentic uses of constructions by speakers of that language. Authenticity, in this case, is to be understood as the contextual relevancy of the linguistic units, grammatical forms. As a result, a successful fluency in any language is two facets, acquisition of conventionalized representations of both semantic and syntactic units as linguistic units with contextual factors yielding them. Contextual factors also include pragmatic strategies such as speaker’s attitude and speech acts. Therefore, the teaching of grammar in second/foreign language should be holistic in the sense that all these contributing elements forming the grammar should be provided to the learner as interrelated to each other rather than distinct components.

There are various studies designed with the considerations mentioned above some of which are explanatory and quantitative in nature, while others express interest in designing pedagogical applications. For instance, Achard (2004) investigated the use of articles in English by French EFL learners. Secondly, A study by Athanasiadou (2004) explored the use of temporal connectors, while Chen and Oller’s (2008) study handles the analysis of passive voice structures by Chinese EFL learners. Also, Niemeir and Reif (2008) demonstrate the exploration of tense aspect use by German EFL learners with Cognitive Grammar oriented approach. Finally, Langacker (2011) exemplifies the possible application of tense – aspect descriptions with pedagogical suggestions. On the other hand, there are other studies where pedagogical applications of Cognitive Grammar are tested with empirical methods. In the study by Thu (2005), Vietnamese EFL learners received cognitive treatment for the acquisition of articles along with count/mass nouns, and participants were conducted a written test. Overall findings are in favor of cognitive treatment compared to traditional treatment. However, long term effectiveness of cognitive treatment is questioned in the study.

Alternatively, Jacobsen (2012) conducted the study over learners with two distinct first language background; Chinese and Arabic. The study covers the treatments for the teaching of conditionals, and the results state that cognitive treatment is more effective than task based-treatment. Finally, Bielak and Pawlak (2013) utilized cognitive grammar inspired teaching regarding English tense-aspect, and no difference in terms of the effectiveness of both cognitive and traditional treatment was found. Later, Reif (2012) applied to the cognitive treatment of teaching of tense – aspect, and she states that cognitive one is more effective than traditional treatment; however, with limited results. Lastly, Kermer (2016) applied a similar study mainly focusing on the Langacker's descriptions of English tense-aspect, and she also states that almost no significant result was observed between cognitive treatment and traditional treatment with one exception. In her study, learners received cognitive treatment outperformed control group in specific tasks.

2.5. Tense and Aspect

2.5.1. Tense and Aspect in Turkish

Turkish being an agglutinative language, tense, aspect, and mood system (henceforth TAM) is reflected upon the verb via a sequence of affixes, which agree with the root in vowel harmony, therefore, give rise to the formation of constructions (Aksu-Koç, 1988). However, a commonly agreed classification of the Turkish TAM system is still open to discussion even today. Initially, regarding the current scope of the study, "some grammarians like Ergin, Banguoğlu deliberate the tense system of the Turkish as tripartite, i.e. past, present and future, while other like Yavaş (1980) consider it binary, i.e. past - non-past, with the influence of the linguistic approach regarding the future as a modal concept rather than a temporal one (Abdurrazak, 2012, p.44). Complicating the issue further, the concept of the "aspect" is disregarded in the early studies and included within other concepts like mood or mode (Emre, 1945; Dizdaroğlu, 1963; Gencan, 1966; Banguoğlu, 1940). Much later, Aksan (1983) included the term "aspect" in Turkish grammar, and Aksu-Koç (1988) detailed the term "aspect" in the Turkish language, grounding her study in past time reference. Additionally, Kornfilt (1997) covers the concept of the term aspect regarding Turkish. In a similar approach, more recently, a comprehensive work of the Turkish TA system is covered in Göksel and Kerslake (2005), disregarding the category mood. They classified Turkish tenses into

two as "past" and "non-past". Further, they provided two distinct categories for the Turkish aspect as "perfective" and "imperfective" following Comrie (1985). However, unlike Kornfilt (1997), Göksel and Kerslake (2005) limited the distinction between two aspectual categories to mainly past timed sentences, stating "perfective aspect is expressed by the verbal suffixes -DI and -mİş, and imperfective aspect is expressed by the verbal suffixes -(I)yor, -mAktA and -(A/I)r, and the past copular marker -y(DI). In this study, following descriptions of Turkish tense, past and non-past, and aspect, perfective and imperfective, are based on the analysis of Kornfilt (1997) and Göksel and Kerslake (2005).

2.5.1.1. Past and Nonpast Tenses in Turkish

Past tense in Turkish is marked by the verbal suffixes -DI, definite past) and – mİş, reported past (Kornfilt, 1997, p. 337).

- a. Hasan dün opera -ya git **-ti**

Hasan yesterday opera -Dat. go **-Past**

"Hasan **went** to the opera yesterday"

- b. Hasan dUn opera -ya git **-miş**

Hasan yesterday opera -Dat. go **-Rep.Past/Infer.Past**

"Hasan **reportedly went** to the opera yesterday"

"It appears that Hasan went to the opera"

(Kornfilt, 1997, p. 337).

According to Kornfilt, the major distinction between two structures is that for the first one, suffix -DI states the speaker's commitment to the truth of the statement, while, as for the later, it cannot be argued whether the speaker ascertains that the statement is true. Similarly Göksel and Kerslake (2005) emphasizes the truthfulness of the statement imposed by the structures and state that -y(DI) "expresses the past tense in absolute terms", while "-mİş is a marker of relative past tense" (p. 285). Further, they argue, in both cases event is viewed as a completed whole, perfective aspect. Apart from past tense suffixes, Kornfilt (1997) acknowledges that in narratives aorist form (Unmarked Present or Present Simple) as well as Present Progressive can also be used to express past timed events to provide "vividness" or "more immediacy" (p. 339).

Additionally, Korkmaz (2017) explicates on the semantic/pragmatic realization of the definite past and acknowledges discourse functions of the marker as; it is used if the event is known both by the speaker and the listener or if the event or situation is witnessed by the speakers yet not realized by the listeners and in each case the event is completed in the time of speech; if the event or the situation is not witnessed by the speaker yet (s)he is sure that event or the situation is real, and also it is used with verbs providing description of an event or a situation stating durativeness (p.528, 529, 530). Korkmaz's description of actual use of the tense indeed is in partial contrast of Göksel and Kerslake who claim that marker -y(DI) only expresses perfective aspect, completed whole, yet Korkmaz exemplifies durative, imperfective use of the suffix.

On the other hand, concerning the Turkish present tense, while Kornfilt states that most general representation of the present tense is expressed via suffix -A(r), while Göksel and Kerslake (2005) claim that it is expressed by either the absence of the past tense marker -y(DI) or progressive aspect marker -(I)yor and less commonly -mAktA.

- a. Hasan her sabah kahvaltı **ed-er**
 Hasan every morning breakfast **do -Aor.**
 "Hasan **has** breakfast every morning"
- b. Hasan çocuk -lar -ın -ı çok sev **-er**
 Hasan child -pI. -3.sg. -Acc. very love **-Aor.**
 "Hasan **loves** his children very much"

(Kornfilt, 1997, p. 336).

Present tense markers in Turkish indicates the habitual actions and general events, thus coming close to a universal tense (Kornfilt, 1997, p. 337). However, in these examples, it is also possible to infer aorist for the future or even for the past tense. Nonetheless, regarding Göksel and Kerslake's description (2005), "progressive aspect, which presents a situation as ongoing at a particular point in time, is equivalent in tense terms to "relative present" (p. 286)

- c. Ayten bir bankada çalış-**ıyor**.
 'Ayten **works/is** working in a bank.'

In contrast to Kornfilt (1997) and Göksel and Kerslake (2005) who claim the absence of the universal, timeless or all-time tense in Turkish, Korkmaz (2007) states the realization of the present time in Turkish as a flexible structure, covering a time frame stretching from indefinite past to indefinite future while also express permanency. However, in Korkmaz's analysis present time is accounted as equal to unmarked/simple present. Similarly, Jendraschek (2011) explores on the issue and stating that Turkish has present time yet not present simple in the sense of English tense – aspect, as tense marking is obligatory and zero-marking has a specific meaning (p. 248). Likewise, Korkmaz (2007, p. 573, 574, 575) defines semantic/pragmatic use of the present tense/unmarked/zero-marking structure as; stating permanency and generality, providing vividness to the narrative if it is used as absolute past tense to tell witnessed event or the situation, in place of relative past tense where speaker expresses an event or a situation of which (s)he is not a witness, instead of progressive aspect in present time to express the event or the situation without durativeness and absoluteness, and also using as future time to emphasize events or situations to occur in the near future yet without and absoluteness.

2.5.1.2. Aspect in Turkish

Regarding aspect in Turkish, it is not possible to clearly classify structures in the sense of Comrie's (1978) definition of the aspect as suffixes in Turkish also express tense and mood. First issue was mentioned above that is whether the unmarked/zero-marking should be regarded as an aspect all alone or as a time frame. Both Kornfilt (1997) and Göksel&Karslake (2005) do not mention of the distinction and state present time as aorist aspect covering instances of both time and aspect. On the other hand, Jendraschek (2011) advocates that Turkish the use of the term aorist is “misleading” as the term aorist “denotes the aspectless verb form” (p. 255) and he further suggests the term “dispositive aspect” instead (p. 253). Despite terminological disunity, semantic/pragmatic realization of the suffix is similar to that of Korkmaz's description provided above.

Göksel and Kerslake (2005), similar to Kornfilt (1997) subdivide imperfective aspect into two regarding Turkish aspect system as progressive and habitual, they state that both of them are applicable to past and non-past time. However, without further subdivision, Jendraschek (2011) names this aspect progressive all alone, yet he also

acknowledges realization of the aspect is similar to descriptions provided by others.

Progressive aspect is applied to both states and events expressing incompleteness, ongoingness at the temporal reference point. Nevertheless, habitual aspect is for a different realization of incompleteness that is “not at the level of any specific occurrence but in the sense that it is part of a recurrent pattern, which is shown as ongoing at the temporal reference point” (Göksel and Kerslake, 2005, p. 289).

Progressive (event)

A. -Şu an-da ne **yap-ıyor-sunuz?**

this moment-LOC what do-IMPF-2PL

‘What are you doing at the moment?’

B. -Yemek **yi-yor-uz.**

meal eat-IMPF-1PL

‘We’re having dinner.’

(Göksel and Kerslake, 2005, p. 289)

Progressive (state)

Sen Ömer-i ben-den daha iyi **tanı-yor-sun**

you Ömer-ACC I-ABL more well **know-IMPF-2SG**

‘You know Ömer better than me.’

(Göksel and Kerslake, 2005, p. 290)

Habitual

Fatma genellikle Ankara-ya **otobüs-le gid-iyor.**

Fatma usually Ankara-DAT bus-INS **go-IMPF**

‘Fatma usually goes to Ankara by bus.’

(Göksel and Kerslake, 2005, p. 290)

Finally, regarding perfective aspect while Göksel and Kerslake (2005) limits it to only past time, Kornfilt (1997) argues that it is debatable. Additionally, while Göksel and Kerslake provide the use of the suffix -miş with perfective aspect denoting the outside view of an event or a situation as a completed whole, Kornfilt (1997, p.355) argues that “the form that comes closest is the definite simple past suffix -DI”. Quite opposite, Jendraschek (2011) expresses that exponent of the perfective aspect is -miş

suffix and English “past perfective in is comparable to a plusquamperfect, whereas the present perfective has acquired evidential meanings” (p.258).

- | | |
|-----------------|---------------------------|
| a. git-miş-ti-n | b. Git-miş- Ø-sin |
| go-PFV-PST-2SG | go-PFV-PRS-2SG |
| ‘you had gone’ | ‘you (seem to) have gone’ |

To conclude, discussion of Turkish tense – aspect system is still open to dispute and as well as differences in terminology, distinction among researchers and their analysis vary greatly. However, in depth description of the system is beyond the scope of the current study, a comprehensive analysis of Turkish and discussion over different approaches are provided in other studies (i.e. Abdurrazak, 2012)

2.5.2. Tense and Aspect in English

The tense and aspect system of English is relatively well described in the literature. More recently, there are studies (Biber, Johansson, Leech, Conrad, Finegan, 1999; Carter & McCarthy, 2006) emphasizing usage-based/descriptive analysis of the system. However, similar to Turkish, the issue of unmarked/simple aspects being regarded as an aspect or simply present tense persists in English. While Biber lists (1999) two tense in English, present, and past, and three aspects unmarked/simple, perfect and progressive, Carter & McCarthy (2006) propose two tenses and two aspects progressive and perfect. In both studies, future time references are viewed as a combination of modal and aspect.

2.5.2.1. Past and Nonpast Tenses in Turkish

As stated above, English has two tenses, present, and past. In many cases, the term non-past is used interchangeably, unlike in Turkish, where non-past emphasizes the absence of the past time morphology. In English, the present tense is unmarked except for the suffix (e)s for the third person singular. As for the past tense, verbs are marked with the suffix -ed and irregular forms. Biber (1999, p. 453) states that “present tense (Simple Present) referring to present time has two major meanings: to describe a state existing at present time, and to describe present habitual behavior”. Carter &

McCarthy (2006) emphasize the future use of present simple in future time and past time references, particularly in narratives.

On the other hand, past time mostly refers to past time with the point of references in the past. Biber (1999, p. 454) also describes past tense as “which relates more to present time, but with an added indication of stance”, “...past tense can indicate a present time state of mind with a tentativeness that shows the speaker is being especially polite”. Carter & McCarthy (2006, p. 406) also explain the similar use as “the past tense forms are also used to refer to the present time, especially for reasons of politeness or indirectness.

Did you **want** a cup of tea?

Hi Peggy this is Ellen at Sports Spectrum, um, I **wanted** to let you know we got your swimsuit in.

(Biber, 1999, p. 454)

Biber (1999) specifies that the use of the present simple is more common in English with a broader range of meanings, which can be used to refer to events or the situations in past and present, present habitual behaviors, and future occasions. Nonetheless, past simple is referred by native speakers of English, particularly pointing states or events in the past, excluding all present and future references.

2.5.2.2. Aspect in English

English unmarked/simple aspect is associated with present and past tense references, which encodes a single or repeated action as well as a permanent state. The primary rationale underlying the definition of the simple aspect is similar to that of Turkish, absence of the progressive or the perfect aspect defines the simple aspect. Likewise, the unmarked aspect is regarded as simple for both time references. On the other hand, progressive aspect “designates an event or state of affairs which is in progress, or continuing, at the time indicated by the rest of the verb phrase” (Biber, 1999, p. 460). It is the combination of progressive aspects with the tense that gives rise to the semantic/pragmatic orientation. Present progressive encodes, particularly events happening at the time of speech or around the time of the speech, describe the temporal state of the event or state of affairs.

Furthermore, present progressive grounds repeated events into a temporary context. Carter & McCarthy (2006, p. 602) also express that “the present progressive is also used to describe regular actions in relation to a particular time or a specified event, especially where those events interrupt things already in progress”. Finally, processes signaling a change of affairs or status is often told with progressive aspect. Realizations of the progressive in the past tense are also similar to ones that of the present tense. One final use Carter & McCarthy (2006) explain is the use of progressive with present tense to express indirectness or politeness in the present time with stative verbs. However, they also emphasizes that simple aspect with past time with present time realization is most commonly preferred.

Events in progress at the time of speaking;

Well er, **I’m looking** across the road now and all I can see is a chemist’s shop.
Why **is** he **smiling** like that? It all looks a bit suspicious.

Carter & McCarthy (2006, p. 600)

Repeated events in temporary contexts;

She’s seeing him quite a bit at the moment.

(she’s meeting him regularly)

Is she **still swimming** three times a week?

Carter & McCarthy (2006, p. 601)

Processes of change;

He’s been in hospital for three weeks but **is improving** steadily.

They’re building a new by-pass. It’ll be good for the town but **it’s taking** ages to finish.

Carter & McCarthy (2006, p. 601)

Regarding the perfect aspect in English, Biber (1999) proposes that “perfect aspect designates event or states taking place during a period leading up to the specified time” (p.460). However, Carter & McCarthy (2006) classify perfect aspect within past time references still acknowledging its reference to present time. They emphasises the

past time as point of departure for perfect aspect. Again, semantic/pragmatic realization of the perfect aspect is due to tense used with it. As in the case of present perfect, it bridges the past time to present time, referring to event taking place in the past yet connects with the present time. Additionally, they acknowledge that “the present perfect is often used initially to provide an overall frame for the reporting of past events, in spoken and written narratives and reports (Carter & McCarthy, 2006, p. 618).

*Poisonous black widow spiders **have invaded** Britain by plane. They **stowed** away in crates of ammunition flown from America to RAF Welford, Berks. A US airman at the base near Newbury **captured** one of the spiders in a jar after it **crawled** out of a crate*

(Carter & McCarthy, 2006, p. 618).

Finally, perfect aspect with past time refers to events or actions started in the past and leading up subsequent past time. Past perfect verb phrases are context-dependent-referring to a time before past time signaled elsewhere (Biber, 1999, p. 469). Additionally, it is not always clear intended time reference with past perfect, therefore, in many cases past perfect requires time adverbials or dependent clauses to be grounded in time frame.

But too late; he **had (already) told** her.

(When he returned) the priest **had** (already) use the special needle-sharp quill and ink

Biber (1999, p. 470)

As a conclusion, from many perspective, English and Turkish tense – aspect structures are comparable with few differences. Both languages has two time frames, while Turkish has additional aspects prospective(future time reference) and dispositive(the term aorist is used in other studies). Additionally, “English uses two auxiliaries, be and have, Turkish only uses forms equivalent to ‘to be’, i.e. either non-verbal predicate marking without any copula or the suppletive copula olmak” Jendraschek (2011, p. 266). To simplify matters across two languages, Jendraschek

(2011)'s morphologically motivated comparison of both English and Turkish tense – aspect system and their cross-equalivents are provided below.

	Present	Past
Progressive	(gidiyor)um I am (going)	(gidiyor)dum I was (going)
Prospective	(gideceğ)im I am (going to go)	(gidecek)tim I was (going to go)
Perfective	(gitmiş)im I have/am (gone)	(gitmiş)tim I had/was (gone)

To sum up, so far, in this section, Error Analysis and its revival with updated tools and a new understanding as Computer-Aided Error Analysis were explained along with their relevancy to the second/foreign language teaching environment. Additionally, a related review of the literature of Corpus Linguistics and Learner Corpora studies, which have the primary role of the revival of Error Analysis, was provided. These approaches form the backbone of the exploratory nature of the current research. Finally, Cognitive Grammar and its pedagogical application were explained, and related studies that inspire the remedial teaching instructed in the study were provided. Finally, a brief description of both languages' tense-aspect systems was explained with a limited scope, exemplifying semantic/pragmatic realizations in comparison. The next chapter is the portrayal of the methodologies utilized in the study and description of participants, teaching methods, and materials used.

CHAPTER III

METHODOLOGY

This chapter includes information about the methodology of this dissertation. It presents the corpora scrutinized and participants involved in the study. Then it mentions the procedure of the data collection, and tools applied in the experimental section and a summary of data analysis. Detailed data analysis is handled in chapter four.

3.1. Learner Corpus and Quantitative Analysis

3.1.1. The Cambridge Learner Corpus

This study utilizes the Cambridge Learner Corpus (CLC) which estimated to be 42million of word corpus. CLC is a subcorpus of Cambridge English Corpus (CEC), which is a 1.8billion of words corpus.

Cambridge English Corpus	Native Speakers		Cambridge Academic Corpus
			Cambridge International Corpus
			Cambridge Spoken Corpus
	Students		Cambridge Learner Corpus Coded
			Cambridge Learner Corpus Uncoded
			Cambridge Learner Corpus Question Papers

Figure 2. Breakdown of Cambridge English Corpus

On figure 2, CEC consists of two major parts; data from native speakers and data from English learners. CEC' native speakers part contains data from several sources including both written and spoken samples. Written data is from several magazines, newspapers, books and websites, blogs consisting of contemporary English. On the other hand, spoken data covers colloquiums and debates along with TV and radio programs and different types of conversations. Students part, namely The Cambridge Learner Corpus, contains student answer papers from Cambridge ESOL exams. These

exams are as follows; IELTS (International English Language Testing System), First FCE (First Certificate in English), Advanced CAE (Certificate of Advanced English), Proficiency CPE (Certificate of Proficiency in English), Preliminary PET (Preliminary English Test), KET (Key English Test), BEC (Business English Certificates) and also BULATS (Business English Testing Service). Up to date, CLC includes 42million of words from more than 200.000 students from 173 countries. The learner data in the CLC is documented to provide a comprehensive profile of the learners according to their first language, nationality, exam they take, learners' level of English proficiency based on Common European Framework of Reference for Languages (CEFR), year of taking exam as well as learner' education level, age, years of English study, gender and finally their performance of the test either they pass or fail. This metadata is useful as it enables researchers to specify parameters, both creating subcorpora or filtering out the results as they wish. The uniqueness of CLC, however, is not only due to rich metadata it provides but it is also because of its error coding system. A part of CLC is error-coded, that is to say, learner errors and their corrected forms in the corpus are tagged with a special set of annotation schema. Therefore, it is possible to investigate students' performance in each level defined in CEFR and difficulties learners face in these levels. Also, it is possible to search for errors specific to learners with the particular first language.

3.1.2. Turkish Subcorpus of CLC

Following the purpose of the current study, three subcorpora with unique ids were created within CLC, covering only written learner data of secondary school and university students. Regarding format and styles, from articles to survey and questions within four different registers; formal, informal, mixed, and neutral/unmarked text was included. Additionally, three subcorpora were created according to CEFR levels of students' performances in all available ESOL exams. There are two ways of defining levels of students in CLC. First one is to take into consideration of levels of students based on their statement of their own levels. The second one is based on the students' evaluation of the test they take. As there may be a mismatch between students' levels as they stated and their actual levels as attested by the ESOL exam, during the creation of the subcorpora, students' actual exam performances were selected as defining criteria.

Therefore, breakdown of CLC coded, Turkish subcorpus and three subcorpora created are as follows;

Corpora	Word Counts
CLC coded (whole corpus)	29.266.800
Turkish Subcorpus of CLC	1.125.043
TRA12WrTV (A1-A2)	13.590
TRB12WrTV (B1-B2)	115.189
TRC12WrTV (C1-C2)	117.328
Sum of three subcorpora	246.246

Figure 3. Breakdown of CLC, Turkish Subcorpus, and three Subcorpora

On figure 3 breakdown of all corpora scrutinized in the study were given. Description of IDs for each subcorpus is as follows;

- TR- Students with Turkish first language,
- A12 – students’ actual performance on the test and its correspondence on CEFR leveling as from A1 to A2.
- B12 - students’ actual performance on the test and its correspondence on CEFR leveling as from B1 – B2
- C12 - students’ actual performance on the test and its correspondence on CEFR leveling as from C1 – C2.
- Wr – Written data only from four registers available in the corpus, formal, informal, mixed, and neutral/unmarked with various formats ranging from articles to survey and questionnaire answers and essays.
- TV – Subcorpora created for the analysis of Tense – Aspect Errors.

However, these figures given in the Figure 3 representing subcorpora are subject to change as Cambridge Learner Corpora is regularly updated with the latest data from exams in questions. When duplicated following similar principles, researchers may get different numbers. Therefore, these figures may be only available up to the time of

analysis applied for the current study, with the total number of words for each subcorpus given in the Figure 3.

3.2. Investigation of the Subcorpora and Quantitative Analysis

Quantitative analysis of the study is handled through two-layered processes which first initialized descriptive statistics and inferential statistics regarding three subcorpora. Next is to the application of cluster analysis as to measure the strength of attraction among structures and semantic classification across three levels. The overall aim is to assess to what extent the use of English tense-aspect structures vary across three proficiency levels and whether learner levels account for the tendency to the priming of specific structures with certain sets of verbs within particular semantic categorization. Additionally, the same procedures were applied to see the relationship among learner levels and frequency of tense – aspect errors.

Biber's (1999) semantic classification of English verb was utilized in the study. Many studies regarding tense – aspect structures are heavily depended upon Vendler's (1967) four-way classification of lexical verbs with respect to Aspect Hypothesis (Andersen & Shirai, 1994). Inconsistency of categorizations of verbs with such approach in different studies and the lack of a stable approach to assessing verbs regarding their inherent aspectual features are still an ongoing debate. Additionally, Dowty (1979) expresses that "classification is "fuzzy", because the criteria on which it is based are subject to differing expectations about the way changes will happen over time" (p.18). Therefore, it is expected that different speakers will have a different interpretation of the verbs. Furthermore, verbs in analysis usually seem to shift across different categories depending on the context which necessitates each verb to be categorized within the text or conversation it is used. Hence it is not feasible for corpus studies and not possible to generalize the results. Finally, Aspect Hypothesis's primary claim is the similarities of acquisition aspectual features and tense constructions between first language and second language. Therefore, it is claimed in this study that it is biased in the sense that all instances of uses be it correct or incorrect, authentic or non-authentic, all is due to target or first language inference which disregards other possible factors such as subject-related, contextual factors or instruction influenced ones.

On the other hand, in parallel with the empirical nature of the study, Biber's classification is based on the investigation of different genres consisting of native speaker uses. With the frequency-based approach, in Biber's study, verbs are classified according to their "core meanings, the meaning that speakers tend to think first" (Biber, 1999, p. 361). The problem of the multitude of meanings; therefore, different classifications for different meanings still persist with this approach. However, as this study is vigorously frequency-based, verbs with multiple meanings are categorized according to their most typical semantic domain. The result is seven semantic domains, namely; *Activity Verbs*, *Mental Verbs*, *Communication Verbs*, *Existence or relationship verbs*, *Occurrence Verbs*, *Facilitation of causation Verbs*, and *Aspectual Verbs*. A comprehensive list of verbs within seven semantic domains is provided in the study (See Appendix 1), however, where necessary, verbs in the current study are also added to list provided by Biber, in the light of explanations of semantic domains.

Furthermore, Biber's (1999) study covers the most typical use of verbs in seven semantic domains in four different genres, *academic*, *conversation*, *fiction*, and *news*. It also covers the use of most typical English tense-aspect structures with seven semantic domains in four different genres by native speakers. Considering the authenticity of learners' uses, it is also possible to provide cross-comparisons between learner uses and the native speaker uses.

3.2.1. Descriptive Analysis

Descriptive measures employed in the study include raw and normalized frequencies of TA structures classified in seven semantic categorizations per each subcorpus. Corpus analysis in the study handles finite verbs as the focus on specific syntactic constructions regarding the use of six English TA structures in the text, verbs are extracted through a series of complex queries, therefore applied a word-based calculation. Normalized frequencies are calculated on the ratio of occurrence per 10,000 words due to small size of subcorpora.

Regarding inferential statistics, statistical significance was calculated using the log-likelihood test. However, as the study includes a comparison of three subcorpora, effect size metric for log-likelihood to assess if the observed differences are statistically significant. Finally, Bayes Factor (BIC) was calculated to measure if the probability of a difference in frequency is due to chance. It is important to note here that ELL and BIC

are used only if results from the log-likelihood test indicate that differences are statistically significant, and thus there is an indication that the NULL Hypothesis, which is “there is no relationship between learners’ level and their use of English TA structures”, can be refuted.

Overall, two types of descriptive statistics (raw frequency and normalized frequency) and three types of inferential statistics (statistical significance, effect size, and Bayes Factors) are utilized in the study. All these constitute the combination of quantitative methods in the analysis of the corpora, thus achieving within-method triangulation.

Finally, exploitation of three corpora was handled via complex queries both for searching for all the tensed verbs and erroneous ones. The concordance returns from queries were manually checked for the second time, and mistaken lines were excluded from the analysis. This is required as automatic tagging, and error coding of Cambridge Learner Corpus covers some mistaken tags. For instance; in some cases, it was observed that contradiction of copula or auxiliary *be* were treated as contradictions for auxiliary *has* without being careful of the voice. To prevent the overlapping issue, manual checks were applied for all instances of tensed verbs, error tags, and corrections.

3.2.2. Cluster Analysis

Cluster analysis is a multivariate method to classify cases in the data based on a set of observations measured into several different groupings regarding dis(similarities) among cases so that similar cases are placed in the same group. It captures the classes or meaningful groups that share common or pair-wise characteristics. Gries and Stefanowitsch (2010, p. 77) defines three steps in clustering as follows;

- i. comparing pairwise (dis)similarities between the items in a (dis)similarity matrix,
- ii. successively amalgamating all items into clusters such that the items within a cluster are highly dissimilar to each other and at the same time highly dissimilar from all other items and clusters,
- iii. representing the resulting structure in the form of a tree-like dendrogram

The entire collection of different statistical analysis of clustering is generally referred to as clusters, however; there are various types of clustering, and in many cases, the choice is objective. The selected linkage measure will have a direct impact on the clustering procedure, and how clusters are merged together (Mazzocchi, 2008) Researcher is to utilize one specific clustering method among others regarding the data and objectives in question. The different types of clustering include; hierarchical (nested), partitional (unnested), exclusive, overlapping, fuzzy and finally complete and partial clustering.

Following Gries and Stefanowitsch (2010), Gries and Hipert (2008) and Gabrielatos (2019), this study utilizes hierarchical analysis. The tree of hierarchical clustering can be produced either bottom-up, by starting with the individual objects and grouping the most similar ones, or top-down, whereby one starts with all the objects and divides them into groups to maximize within-group similarity (Schutze, 1999, p. 501). This study employs “agglomerative” (*Agglomerative Nesting*) method with “Euclidean” metric on an “average linkage” similarity matrix. In agglomerative clustering, each object is treated as single clusters, next pairs of clusters, clusters that are the most similar, are merged until all the clusters identified in the data are merged into one single cluster. Gabrielatos (2019, p.9) emphasizes that “it makes no initial assumptions of similarity; the agglomerative method is consistent with the empirical nature of the study”. Finally, “average linkage” measures the distance between pairs and their similarities and outputs the average of the similarities.

To sum up, step by step analysis is explained as follows;

1) Descriptive Analysis

- a) Using complex queries to exploit the corpora and extract frequencies of tensed verbs in each subcorpus.
- b) Manually checking all concordance lines to eliminate mistaken tagging
- c) Manually extracting all the corrections provided within tagging of the corpora
- d) Calculation of frequencies of verbs tensed with six English Tense – Aspect structures within remaining data
- e) Calculation of frequencies of erroneous use and their corrections regarding verbs with six English Tense – Aspect structures within remaining data.
- f) Categorization of all instance of verbs according to Biber’s (1999) semantic classification across three corpora

- g) Calculating of Loglikelihood, Effect size metrics and Bayes Factor for each class of tense – aspect structures
- h) Calculation of Loglikelihood, Effect size metrics and Bayes Factor for each class of semantic classification

2) Cluster Analysis

- a) Normalization of Data with Z-scores
- b) Calculation of similarities with average linkage method and Euclidean metric
- c) Drawing Dendrograms based on similarity matrix data
- d) Drawing Heatmaps based on similarity matrix data

Spreadsheet incorporating the log-likelihood calculation and the set of effect size measures provided by Paul Rayson was used for the descriptive statistics. All statistical analyses were handled with the free R programming language, and cluster package (Maechler, 2019) was utilized to calculate proximity data, ggplot2 (Wickham, 2016) was used to draw dendrogram and heatmaps.

3.3. Remedial Teaching

3.3.1. Participants

Participants of the experimental study ($N = 71$) are all university students who receive obligatory English course for two semesters in the first year of the university study. Students are from two different departments, first of which is Social Sciences and Humanities Faculty, the Department of Information and Records Management. This group ($N = 38$) received cognitive treatment during two semesters. The second group is from the School of Applied Sciences, the Department of Gastronomy and Culinary Arts, and it is the control group ($N = 33$). In respect to the objectives of the study, the mean age of both groups and gender distributions are disregarded. All the learners in the experiment have already received years of English instruction. However, as all the participants are from different educational backgrounds, mean year of education participants received prior to university education is unknown, and it is not assumed to be influencing factor regarding the objectives of the study. All the students in the study are characterized as A1-A2 level learners, *Basic User*, who are able to communicate, write, read, and employ basic linguistic features, according to CEFR (2006) framework.

Curriculum for this level covers four basic tenses; *Present Simple*, *Present Progressive*, *Past Simple*, and *Present Perfect*. Additionally, learners are required to learn general vocabulary for daily activities, everyday expressions along with lexical items for basic personal information, family information, etc. They are assumed to be able to communicate in simple and routine tasks on familiar matters.

3.3.2. Method and Materials

The researcher is also the English language instructor for both groups. Oxford University Press's *Stretch: Level 2* is used as the main course book for both groups. As for the additional grammar sessions, students used Cambridge University Press's *Active Grammar Level 1*. This book was particularly selected for grammar sessions as it is based on Cambridge Learner Corpus, the corpus which is also scrutinized in the current study. The first level of the book includes usage-based descriptions for grammar modules and exercises based on the authentic data provided by Cambridge Learner Corpus.

Cognitive treatments, on the other hand, includes explanations and extra materials either adapted from other studies or designed by the researcher in the light of related studies such as Radden and Dirven (2007), Broccias (2006), Niemeir and Reif (2008), Drożdż (2011), Bielak and Pawlak (2013), Kermer (2016). The treatment group received cognitive treatments for four weeks for each semester, and the treatments were integrated into grammar sessions. Each grammar session is 90 minutes long, parted into two consecutive courses per week. The learners in the treatment groups were given materials and received explanations in addition to ones provided in their main course and grammar books. For the first four weeks in the first semester, materials and descriptions focus on the actual use of Present Simple and Present Progressive and distinction of two with an explicit focus on the verb choices with each structure. However, verb choices are only limited to ones given in the main coursebook and grammar book, taking into account of learners' levels. Regarding verbs, to highlight authentic verb – tense aspect pair and their internal structure, the case of perfectivity and imperfectivity were also expressed during sessions without mentioning terms. Similar explanations were provided for the control group except for the cognitive treatments and related materials. For the second term, the second four weeks of

treatment includes instruction on Past Simple and Present Perfect in a similar fashion to the previous session.

Effectiveness of cognitive treatment was measured via pre-test and post-test. Both tests are adopted from Kermer (2016) who designed both tests for A1-A2 level learners and measured both validity and reliability of both tests. Pretests were applied to both group a week prior to the first grammar session for each term and posttest was conducted one week after the last grammar session of each term. Finally, ANCOVA test was conducted to measure the mean difference between the overall posttest performances of both groups. ANCOVA test was particularly chosen as to measure the effectiveness of cognitive treatment; pretest results are confounding variable, based on which level of significance between two groups regarding posttest were adjusted. All the assumptions required by the ANCOVA test were applied step by step and provided in the data analysis section along with the results for the level of significance between groups per each session.

CHAPTER IV

DATA ANALYSIS AND RESULTS

4.1. English Tense – Aspect Structures in Turkish EFL Learners’ Corpus

The first section of the current chapter handles descriptive analyses in a hierarchical view starting with the breakdown of the corpora in terms of frequencies of overall TA structures divided into past and nonpast usages. Following it, the breakdown of observations into three aspectual features as Simple, Progressive, and Perfect are given. Finally, combining both analyses, three corpora for the three learner levels, A1A2, B1B2, and C1C2 are scrutinized regarding English TA structures.

Table 1.

Overall Frequencies of Tenses in three Corpora

	Observed frequencies			Totals	Expected frequencies			LL	BIC	ELL
	TRA12W rTV	TRB12W rTV	TRC12W rTV		TRA12 WrTV	TRB12W rTV	TRC12W rTV			
Non	813	4528	4528	9869	544.97	4619	4704	122.	98.0	0,000
Past								89	6	08
Past	569	3764	2891	7224	398.91	3381	3443	199.	174.	0,000
Corp								72	89	14
us	13590	115189	117328	246107						
Size										

Legend; TRA12WrTV is the subcorpora for A1A2 level learners, TRB12WrTV is the subcorpora for B1B2 level learners, TRC12WrTV is the subcorpora for C1C2 level learners; LL is the loglikelihood results, BIC is the Bayes Factor, ELL is the Effect size for loglikelihood

On table 1. Overall frequencies of finite verb tenses within two groupings across three subcorpora representing three levels of Turkish EFL learners, A1A2; B1B2; C1C2, were given in terms of both observed frequencies (raw frequencies) and expected frequencies (normalized values) along with inferential statistic results. It is observed that difference among learner levels regarding both tense usage, nonpast and past, is significant $LL = 122,89$ and $LL = 199,72$, $p < 0.05$ respectively. Additionally, there is positive evidence for both cases ($BIC = 98.06$ and $BIC = 174.89$ respectively) to refute Null Hypothesis, stating that differences in learners’ levels are the effecting factor for

the variance in terms of tense preferences. However, though significant LL results and interpretation on BIC in favor for refuting H0, effect size metrics, (ELL = 0,00008 for nonpast and ELL = 0,00014 for past) emphasizes the overall effect of level distinction on differentiation across three learner levels is of limited potential. Still, it is higher for Past time uses, as ELL results are to be interpreted as closer to 1, higher the effect.

Table 2.

Breakdown of Aspect Structure in three Learner Corpora

	Observed frequencies			Totals	Expected frequencies			LL	BIC	ELL
	TRA12WrTV	TRB12WrTV	TRC12WrTV		TRA12WrTV	TRB12WrTV	TRC12WrTV			
Simple	1327	7445	6495	15267	843,04	7145,63	7278,32	335,97	311,14	0,00020
Prog.	36	389	549	974	53,78	455,88	464,34	31,57	6,74	0,00003
Perf.	19	458	375	852	47,05	398,77	406,18	32,49	7,66	0,00003
Corpus Size	13590	115189	117328	246107						

Legend; TRA12WrTV is the subcorpora for A1A2 level learners, TRB12WrTV is the subcorpora for B1B2 level learners, TRC12WrTV is the subcorpora for C1C2 level learners; LL is the loglikelihood results, BIC is the Bayes Factor, ELL is the Effect size for loglikelihood

On Table 2, the total number of frequencies of finite verbs are broken down into three groupings across three subcorpora in terms of aspectual features. A bird's eye view to the table indicates the overall differences among learner levels regarding aspectual choices for finite verbs are significant for each case; LL = 335.97, LL = 31.57 and LL = 32.49, $p < 0.05$ for Simple, Progressive and Perfect aspect respectively. Nonetheless, ELL (0,00020) and BIC (311,14) results state that primacy of simple aspect as the most distinguished aspect across three corpora influencing factor for the difference among all levels. Use of simple aspect with finite verbs indicates a gradual variation from A1-A2 levels toward C1-C2 levels. On the other hand, while there are observed differences considering other aspects, Progressive and Perfect, both effect size metrics (ELL = 0,00003, and ELL = 0,00003 respectively) and BIC (BIC = 6,74, BIC = 7,66 respectively) results show that influence of learners' levels is relatively small.

Table 3.

Breakdown of English Tense - Aspect Structure in three Corpora

	Observed frequencies			Totals	Expected frequencies			LL	BIC	ELL
	TRA12 WrTV	TRB12 WrTV	TRC12 WrTV		TRA12 WrTV	TRB12 WrTV	TRC12 WrTV			
Prs SIM	765	4106	4004	8875	490,08	4153,89	4231,03	144,44	119,62	0,00009
Prs PRG	32	368	273	498	27,50	314,99	237,41	26,73	-8,70	0,00002
Prs PERF	16	229	251	496	27,39	232,15	236,46	6,50	-18,33	0,00001
Pst SIM	562	3339	2491	6392	352,97	2991,74	3047,29	251,94	227,11	0,00017
Pst PRG	4	196	276	476	26,28	222,79	226,93	42,79	17,96	0,00005
Pst PERF	3	229	124	356	19,66	166,62	169,72	56,52	31,69	0,00008
Corpus Size	13590	115189	117328	246107						

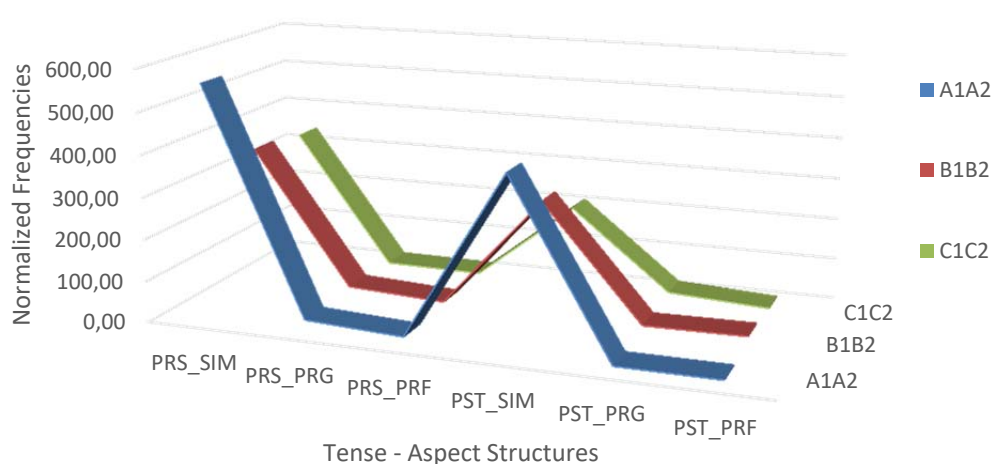
Legend; TRA12WrTV is the subcorpora for A1A2 level learners, TRB12WrTV is the subcorpora for B1B2 level learners, TRC12WrTV is the subcorpora for C1C2 level learners; LL is the loglikelihood results, BIC is the Bayes Factor, ELL is the Effect size for loglikelihood

On table 3, combining previous analyses, the overall frequency of all finite verbs across three levels, A1A2, B1B2, and C1C2, are grouped into six English TA structure. On the table, regarding log-likelihood statistics, the difference among all levels in the use of English TA constructions are statistically significant. However, when analyzed, in-depth, effect size metrics and BIC results emphasize a different case. Initially, in the case of the Null Hypothesis, results are to be interpreted in two ways. First of all, the most significant and striking difference emerging throughout learners' level as their proficiencies are leveling up is in the use of past simple tense. LL (LL = 251.94, $p < 0.05$) and ELL (0.00017) results along with BIC (BIC = 227.11). The overall measurement indicates the significant difference among the three corpora, which is also in favor of signifying that difference is due to learners' levels. Additionally, effect size metric is though small, it is relatively high compared to other tense usages (the closer to 1, the higher it is). Further differences were also observed in the use of Present Simple, Past Perfect and Past Progressive in descending order regarding LL measurements (LL = 144.44, LL = 56.52 and LL = 42.79, $p < 0.05$), in which, for each case difference is due to learners levels however with restricted potential. On the other hand, as for the use of Present Progressive and Present Perfect, LL results (LL = 26.73, $p < 0.05$; LL = 6.50, $p < 0.05$ respectively) state the significance of differences with a small effect size (ELL = 0,00002 and ELL = 0,00001), yet BIC (BIC = -8,70 and BIC = -18,33) results are of

positive evidence in favor of H0, which is, differences in the use of these TAs across three learners' levels are not due to an attributing factor, for this case it is learners' levels, yet it can be another factor. In sum, although there are differences in the use of these two English TA structure across three learner levels with small size effects, these differences can be attributed to the chance of probability or another external factor which is not investigated in the study. It cannot be argued that learners' levels have a primary status affecting use of these two English TA constructions, namely Present Progressive and Present Perfect.

4.1.1. Distribution of English Tense – Aspect Structures across Three Learner Corpora

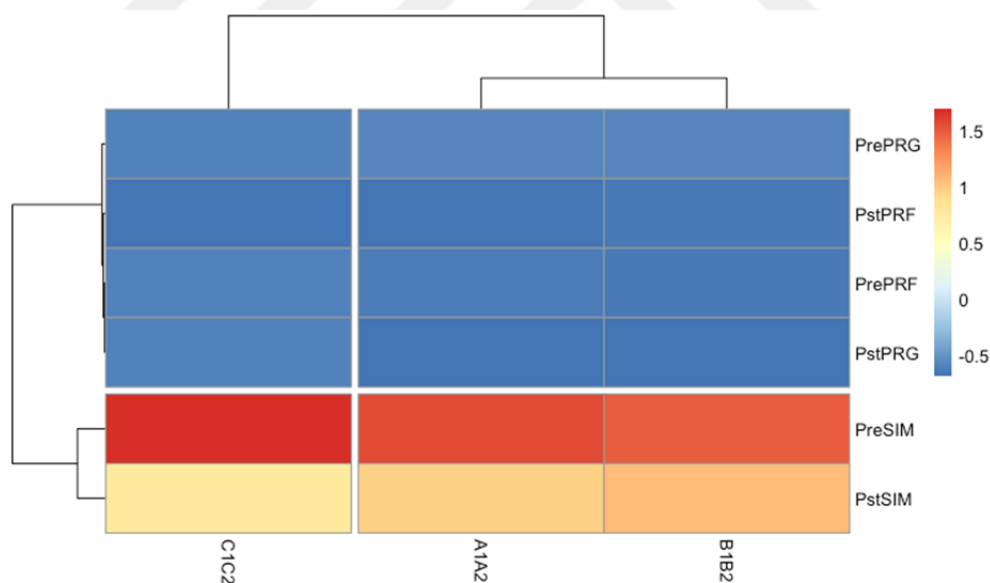
This section will provide a detailed investigation of the use of six English TA structures across three subcorpora using hierarchical cluster analysis followed by distributions of all English Tense – Aspect structures based on normalized frequencies. While overall distributions of all structures in question are measured via normalized frequencies and percentages, cluster analysis is there to identify groupings of semantic classifications' strength of association with English TA structures across three learner corpora. The overall aim is to assess learners' tendency in use of these structures and investigate grammatical behaviors of already semantically classified verbs within tense-aspect combinations.



Legend: PRS_SIM = Present Simple; PRS_PRG = Present Progressive; PRS_PRF = Present Perfect; PST_SIM = Past Simple; PST_PRG = Past Progressive; PST_PRF = Past Perfect; A1A2;B1B2;C1C2 = Three Learner Levels; C1C2, B1B2, A1A2 learner levels

Figure 4. Overall Distribution of six English Tense – Aspect Structures across three Learner Corpora

On figure 4 above, a common trend can be observed regarding normalized frequencies per six English Tense – Aspect structures. Learners across each level; A1A2, B1B2, and C1C2 prime the use of Present Simple initially, which is followed by the use Past Simple. In each case, both structures are the most common in terms of normalized frequencies. Regarding percentages, as for the first level A1-A2 55.35% and 40.67% of all six tenses used in the first subcorpus are Present Simple and Past Simple respectively. Similarly, these figures are for the other levels across the remaining two subcorpora in similar orders are; 49.52% and 40.27% in B1-B2, 53.97% and 33.58% in C1-C2. Interpretation of the results is in line with data given in the previous section as it is stated these two tense – aspect structures are the primary constructions influenced differences among three learner levels in terms of tense – aspect usage. In sum, in each level, learners tend to use Present Simple and Past Simple more compared to other TA structures and percentages acknowledge that a similar tendency remains still as learners' levels step up. From A1A2 level to C1C2, there is a gradual increase in the use of both Present Simple and Past Simple.



Legend: PRS_SIM = Present Simple; PRS_PRG = Present Progressive; PRS_PRF = Present Perfect; PST_SIM = Past Simple; PST_PRG = Past Progressive; PST_PRF = Past Perfect; A1A2;B1B2;C1C2 = Three Learner Levels; C1C2, B1B2, A1A2 learner levels

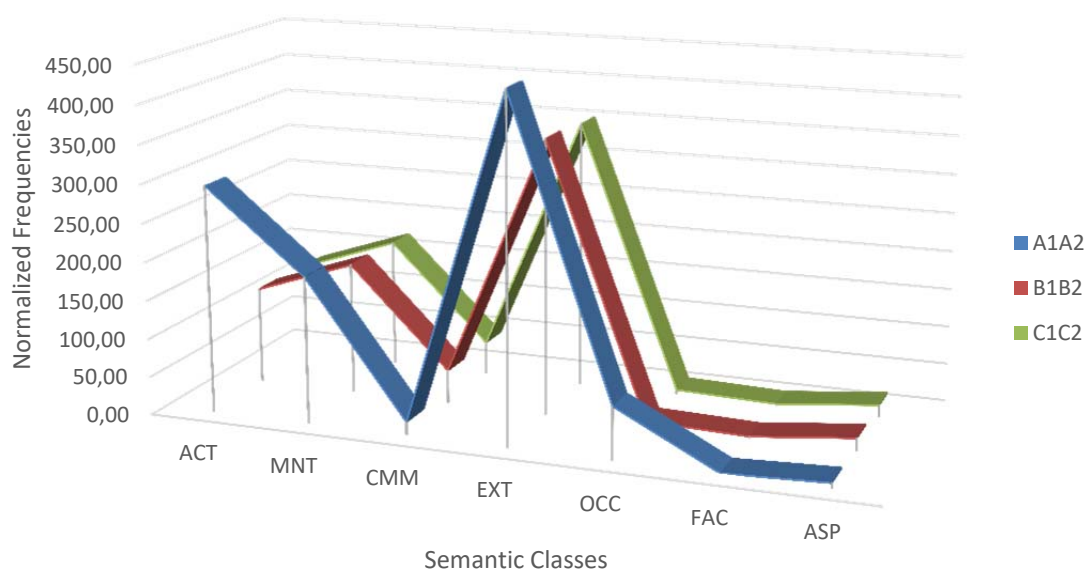
Figure 5. Heatmap for Cluster Analysis Regarding Learners' Levels and Tense – Aspect Distribution

Figure 5 above represents the attraction levels among tense – aspect structures and three learner levels. Initially, hierarchical clustering is applied to both TAs and the

levels via Euclidean statistics as Complete Linkage method. The result is the clustering similar observations close to each other. Therefore, it is possible to state characteristic for each TAs across learner levels. On figure 5, similar to previous analyses considering English TAs and learner levels, Present Simple and Past Simple structures have the primary role for defining differences across levels in terms of TA constructions. Heatmap figure states that Present Simple is attracted most to C1C2 level, which is followed by the figure for attraction between A1A2 level learners and Present Simple and the least saliency level is between B1B2 level learner and Present Simple. Overall results acknowledge that while C1C2 prime the use Present Simple, on the other hand, A1A2 level learners tend to use more Present Simple compared to B1B2 level learners. Instead, regarding Past Simple, figures are different. B1B2 level learners' written outputs, the use of Past Simple has a central place when compared to the use of the same TAs within the other levels outputs. Following this, the second-highest saliency level is between A1A2 level learner and finally between C1C2 level learners. In short, as shown in the heatmap, A1A2 level learners tend to use Past Simple than C1C2 level students. As for the other English TAs, attraction figures are almost identical except with slight variations. However, the most prominent TAs are Present Simple and Past Simple for all three learner levels.

4.1.2. Distributions of Semantic Classes of Verbs Used in Six English Tense – Aspect Structures across three Learner Levels

The further analysis consists of an investigation of verbs used within six English TA constructions across three learner corpora to provide semantic classification based on Biber's (1999) classification of English verbs. To start with, distribution of semantic classes based on normalized frequencies are given for each subcorpus, later on, they are categorized according to tenses they from constructions. Finally, the level of statistical attraction among verbs and tenses are provided along with semantic classes.



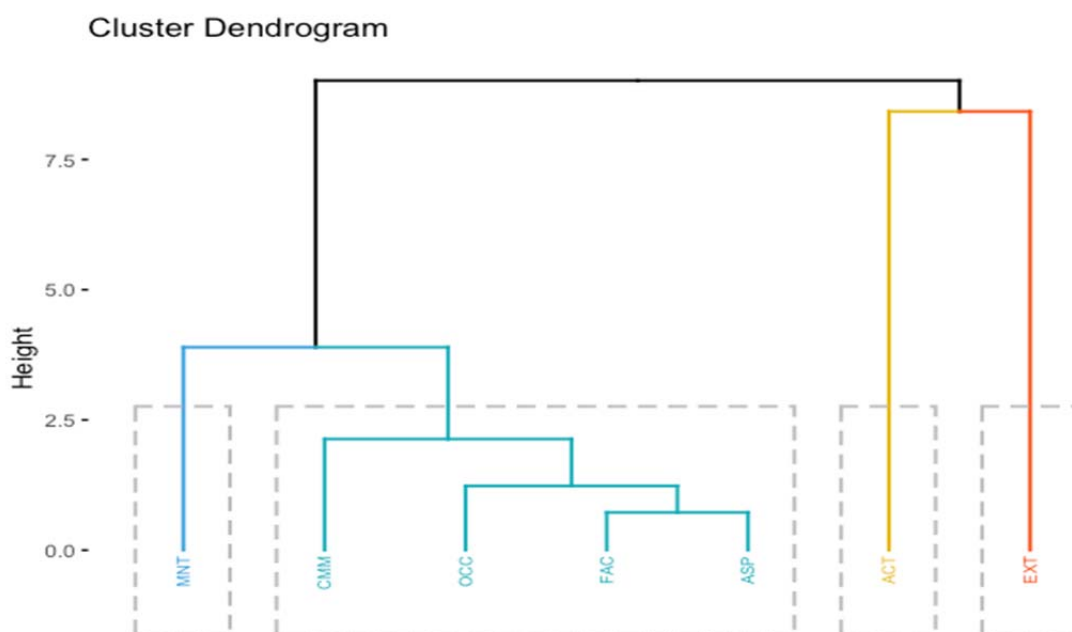
Legend: Act = Activity Verbs; Mnt = Mental Verbs; CMM = Communication Verbs; Ext = Existence or relationship Verbs; Occ = Occurrence Verbs; Fac = Facilitation or causation Verbs; Asp = Aspectual Verbs. A1A2; B1B2; C1C2 = Learner Levels

Figure 6. Overall Distribution of seven Semantic Classes of Verbs across three Learner Corpora

On Figure 6, regarding semantic classes of verbs, the most frequent one across all corpora is *Existence or relationship verbs*. As for the rest of classes, figures vary regarding subcorpora as *Mental Verbs* is ranked as the second class with the highest number of overall token both in B1-B2 level and C1-C2 level learners' corpora. However, the class, *Activity Verbs* is the second one with the highest number of token in A1-A2 level learners' corpus. 43.6 % of all the verbs used within six English Tense – Aspect Structures by A1-A2 level learners are categorized as *Existence or relationship verbs*, while these percentages for other levels are as follows; 49.6 % of all the verbs for B1-B2 level learners' corpus and 58.3 % of all the verbs in C1-C2 level learner corpus. Next is the class of Occurrence Verbs, which is the third most common class in all three levels though frequencies are still low. Meanwhile, another trend exists in figure 6, as the semantic categories *Facilitation or Causation Verbs* and *Aspectual Verbs* have the lowest token counts across all corpora.

4.1.2.1. Cluster Analysis of Semantic Classes of Verbs along with Six Tense – Aspect Structures across three Learner Levels

In addition to overall distributions of both tense – aspect structures and semantic classes of verbs, cluster analysis are applied to reveal the regularities or differences in patterning of six English TAs with seven different semantic classifications in all three learner corpora.

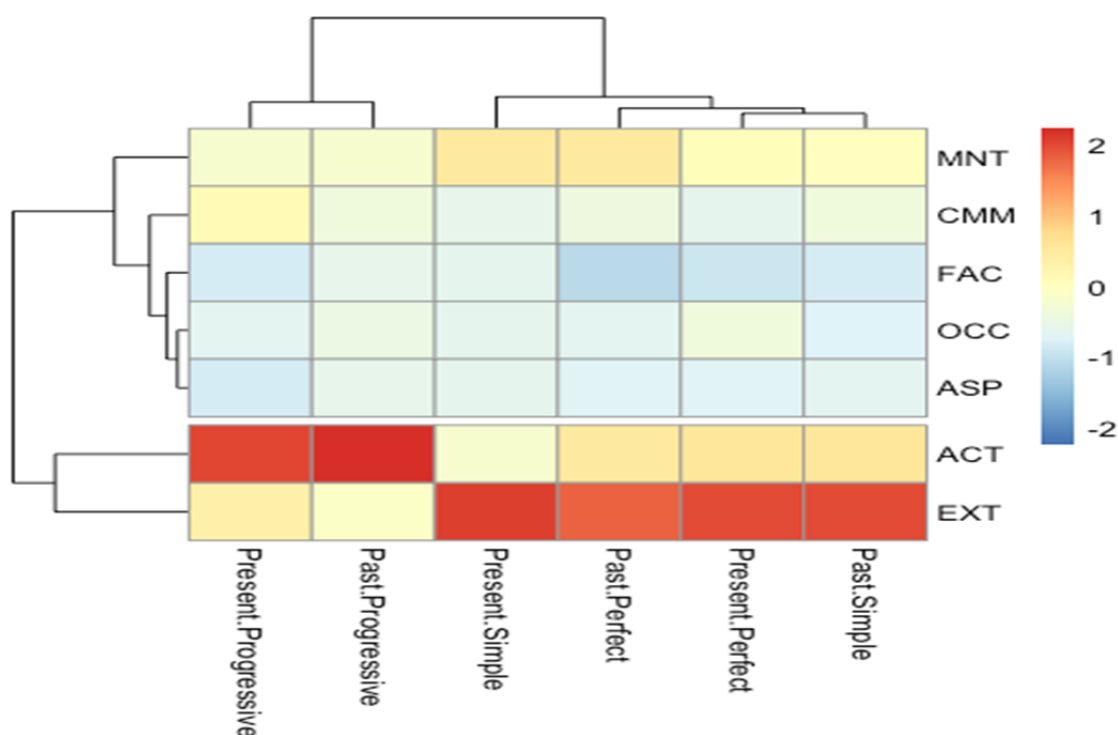


Legend: Act = Activity Verbs; Mnt = Mental Verbs; CMM = Communication Verbs; Ext = Existence or relationship Verbs; Occ = Occurrence Verbs; Fac = Facilitation or causation Verbs; Asp = Aspectual Verbs.

Figure 7. Dendrogram for Cluster Analysis Regarding Semantic Classes of Verbs across three Corpora

On figure 7, hierarchical clustering based on similarity matrix data states the similarities among semantic classes across three subcorpora in terms of English TAs. Similarity data observes that *Activity* and *Existences or relationship verbs* form the most active case of similarity forming the first level cluster differing from the other semantic classes. The grammatical patterning of both these semantic classes emphasizes similarities as they are used with similar TAs by each level. Following this, other classes combine with the first cluster on the fifth level, where Factual or causation verbs and *Aspectual Verbs*, which have the lowest normalized frequencies on figure 6, combines first, and then they form clusters on higher levels with other classes, first with *Occurrence Verbs*, then *Communication Verbs* and finally with the *Mental Verbs*. Results also state that the most dissimilar classes are *Mental verbs*, while similarities

between *Factual or Causation verbs* and *Aspectual verbs* can also be observed, this group only emerges in the higher hierarchy with *Occurrence verbs*, even in much higher one with *Communication verbs* representing dissimilarities among these classes. In sum, regarding verbs used in finite positions in six English TAs, *Activity verbs* and *Existence or relation verbs* represent statistical significance of patterning similarities in all levels, while other classes demonstrate variation in terms of being primed with specific English TAs by each learner level.



Legend: Act = Activity Verbs; Mnt = Mental Verbs; CMM = Communication Verbs; Ext = Existence or relationship Verbs; Occ = Occurrence Verbs; Fac = Facilitation or causation Verbs; Asp = Aspectual Verbs on Horizontal Line; Six English Tense – Aspect Structure on Vertical Line

Figure 8. Heatmap for Cluster Analysis Regarding Semantic Classes of Verbs and Tense – Aspect Distribution

On figure 8, the attraction of verbs categorized in seven semantic classes and six English TA investigated in three learner levels; namely A1A2, B1B2, and C1C2. *Activity Verbs* and *Existence or Relationship Verbs* form the first level of cluster analysis across six English TA on similarity matrix data. Speaking of *Activity Verbs*, across three learner levels, these verbs are mostly attracted to constructions with progressive aspects, namely; firstly, to Past Progressive and secondly to Present Progressive. Second of all, verbs within this class have saliency figures for Past Simple,

Present Perfect and Past Perfect with almost the same levels on the similarity data matrix. Lastly and the most interestingly, the least attracted English TA for the *Activity verbs* is Present Simple. Regarding results, it can be inferred as learners with any level of proficiency are sensitive to aspectual features of English TAs in terms of priming certain sets of verbs within certain constructions, in this case, *Activity verbs* with Progressive aspect.

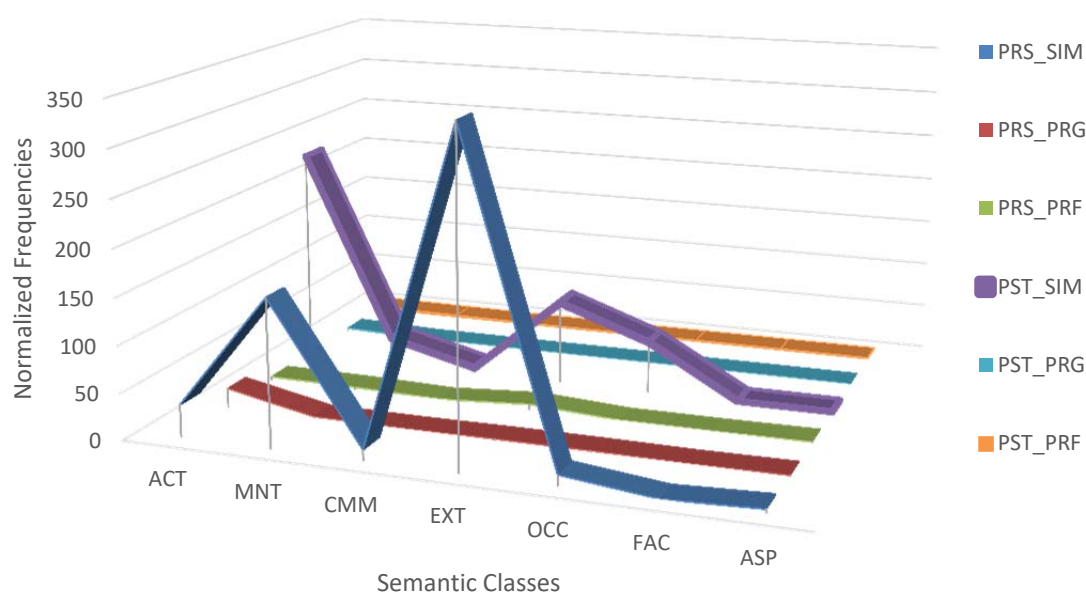
On the second level, regarding *Existence or relationship verbs*, while the most attracted TA is Present Simple. It is followed by Past Simple as the second most attracted construction with this class of verbs while the least attracted one is Past Progressive and Present Progressive with similar measurements. Saliency results for this class are quite the opposite of the results for the *Activity verbs*. In the previous case, Progressive aspect has the primary role of being attracted while it is the Simple aspect for the latter class. Although these variations in priming of aspect are observable, the case is not that clear for the tense choices. Therefore, it is claimed that Turkish learners' with three different proficiency levels are sensitive to aspectual features and they tend to use *Existence or relationship verbs* with simple aspect particularly while it progressive aspect for *Activity Verbs*. As for the rest of the classes, there are certain regularities in patterning of construction, yet there are also striking un-parallelism. For instance, learners are not sensitive to *Mental Verbs* with their preference for both aspect and time. Saliency figures for these classes are grouped into three as it forms attractions with Present Simple and Past Perfect first, then with Past Simple and Present Perfect and finally with Past Progressive and Present Progressive. Finally, there are significant variations across the remaining four semantic classes with their attractions to six English TAs. *Communication Verbs* are attracted to Present Progressive while *Factual or Causation verbs* form saliency with Past Progressive, *Occurrence Verbs* with Present Perfect and lastly *Aspectual verbs* with both Present Progressive and Present Perfect.

4.1.2.1.1. Distributions of Semantic Classes of Verbs along with Six English Tense – Aspect Structures in TRA1A2WrTv Corpus

This section analyzes the subcorpus representing A1-A2 level learners. The initial analysis is for the distribution of semantic classes over verbs based on normalized frequency data. Next is to assess statistical significance regarding attraction among

verbs categorized according to seven semantic classes and TA structures; therefore; both verbs classes and TA structures were clustered.

Regarding the first subcorpus, all the verbs used in six English TAs by A1-A2 level learners were scrutinized and classified into relevant semantic classes. Next, they were broken into TAs they are used with. Therefore, following figure 8 represents normalized frequencies of verbs within six semantic classes and their distributions over six English TAs. (See Appendix 2 for Contingency Table)



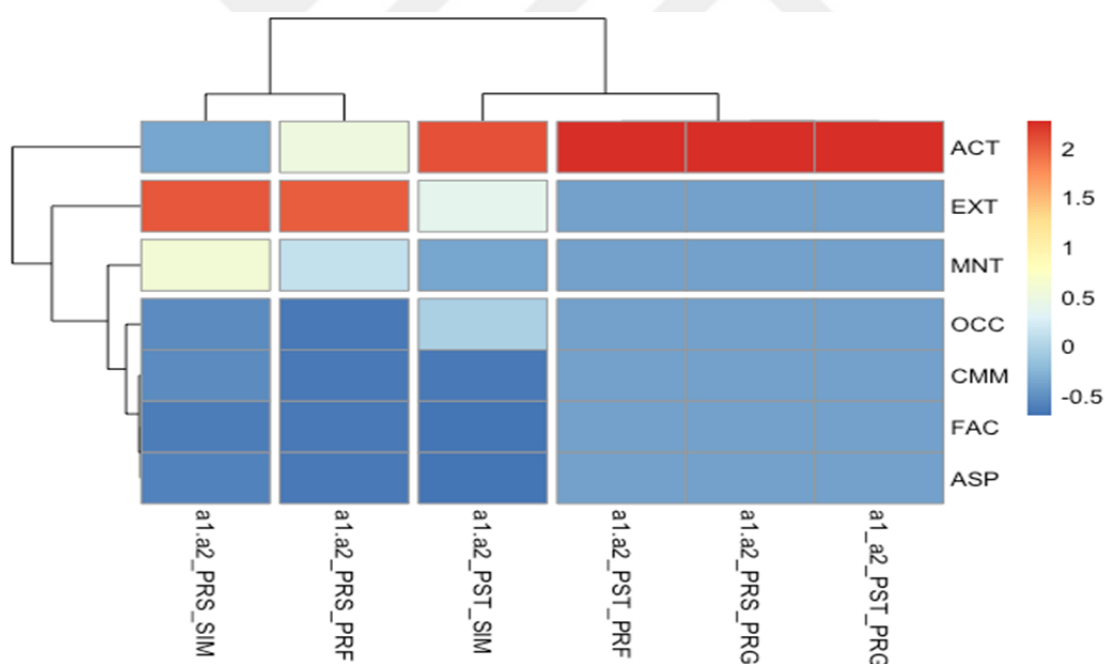
Legend: PRS_SIM = Present Simple; PRS_PRG = Present Progressive; PRS_PRF = Present Perfect; PST_SIM = Past Simple; PST_PRG = Past Progressive; PST_PRF = Past Perfect; Act = Activity Verbs; Mnt = Mental Verbs; CMM = Communication Verbs; Ext = Existence or relationship Verbs; Occ = Occurrence Verbs; Fac = Facilitation or causation Verbs; Asp = Aspectual Verbs.

Figure 9. Semantic Classes of Verbs and their Distributions over six English TAs in TRA1A2WrTv Corpus

On figure 9, starting with the Present Simple tense, which states significant fluctuations concerning distribution over semantic classes, learner data presents *Existence or relationship verbs* covers the majority of verbs within this class. Next is the *Mental Verbs*, which has the second-highest token counts of verbs used with Present Simple Tense by A1-A2 level learners. Figures for the remaining four semantic classes are almost flattened. On the figure, Past Simple is the second most frequently used TA. Learners used the Past Simple tense frequently with the verbs within the class of *Activity Verbs* and *Existence or relationship verbs* in descending order.

Considering other TAs, overall learner profile acknowledges similarities in terms of verb frequencies though with slight differences. It is evident that first level learners, A1-A2, tend to use simple aspect with either past or nonpast time with varying frequencies in different semantic classes. The primacy of simple aspect for the Turkish EFL learners is interesting; however, the actual interpretation of the results should be supported with saliency analysis.

On Figure 10 below, on the basis of semantic classification, usage profile represents divergences regarding clustering levels. While *Communication Verbs*, *Facilitation or causation verbs* and *Aspectual Verbs* combine on the first level cluster, other classes only combine with the first cluster on higher levels and the last one to join is *Activity Verbs*. Regarding the initial interpretation of the heatmap, it is claimed that verbs within three semantic classes namely, *Communication Verbs*, *Facilitation or causation verbs*, and *Aspectual Verbs*, forming the first level cluster on similarity data matrix represent similarities in terms of grammatical patterning over six English TA.



Legend: PRS_SIM = Present Simple; PRS_PRG = Present Progressive; PRS_PRF = Present Perfect; PST_SIM = Past Simple; PST_PRG = Past Progressive; PST_PRF = Past Perfect; Act = Activity Verbs; Mnt = Mental Verbs; CMM = Communication Verbs; Ext = Existence or relationship Verbs; Occ = Occurrence Verbs; Fac = Facilitation or causation Verbs; Asp = Aspectual Verbs.

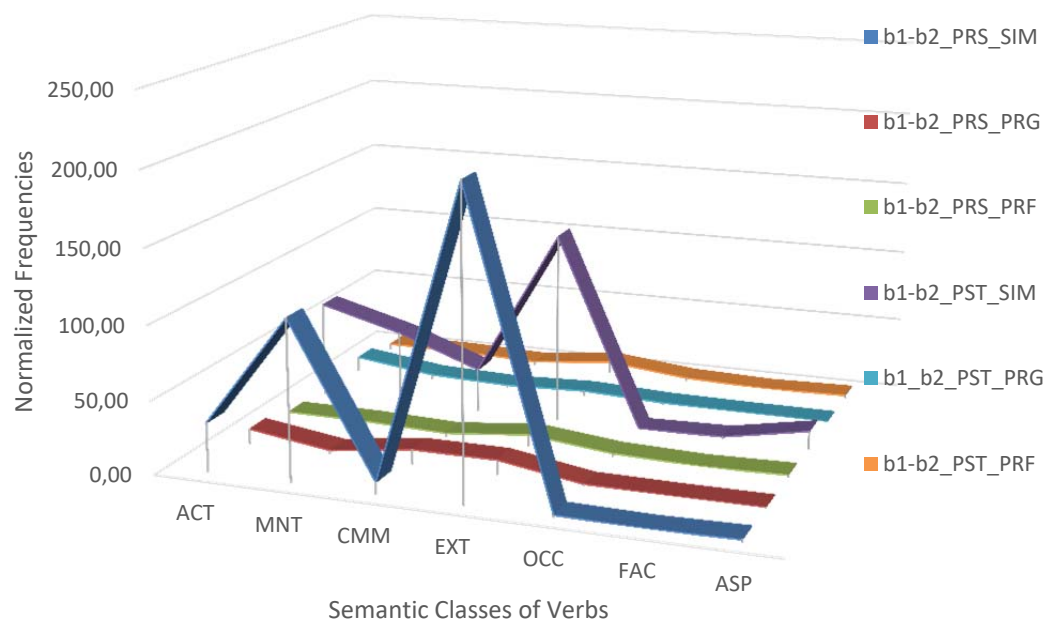
Figure 10. Heatmap for Semantic Classes of Verbs and six English TAs in TRA1A2WrTv Corpus

On the other hand, the most distinctive, that is to say, the semantic class with the most dissimilarity is *Activity Verbs*. On the side of TA structures, Present Perfect and Present Simple forms the first cluster together and the rest combine second finally merge at the highest cluster. Therefore, regarding similarities over the semantic classification, there are two different stories for the usage profile of these TAs in question by A1-A2 level learners. In this case, *Activity Verbs* initially, highly correlated with Present and Past Progressive also with Past Perfect with almost identical similarity scores. While correlation for grammatical patterning across Present Simple and Past Simple, Present Perfect is visible with this semantic class, correlation figures still are weak. *Existence or relationship verbs*, which has the highest normalized frequency count across this subcorpus, is highly correlated with Present Simple of whose figures are followed by Present Perfect and Past Simple in descending order in terms of attraction levels. Lastly, *Mental Verbs* states higher saliency scores with Present Simple and Present Perfect, respectively. Therefore, it is to be proposed that learners on this level are sensitive to semantic profiles of verbs when priming particular TAs to be structured. While *Activity Verbs*, like it is the case for the overall analysis of all three levels, are attracted to progressive aspect most, *Existence or relationship verbs* are attracted to the simple aspect.

4.1.2.1.2. Distributions of Semantic Classes of Verbs along with Six Tense – Aspect Structures in TRB1B2WrTv Corpus

The second section handles the analysis of data by B1-B2 level learners. In a similar fashion to the previous analysis, first of all, all the verbs used by this level learners are investigated, and they are grouped into seven semantic classes along with their distribution over six English TA. Next is to investigate statistical significance among verbs within these classes and TA structures; hence, semantic classes were clustered across tenses and therefore, saliency status were identified.

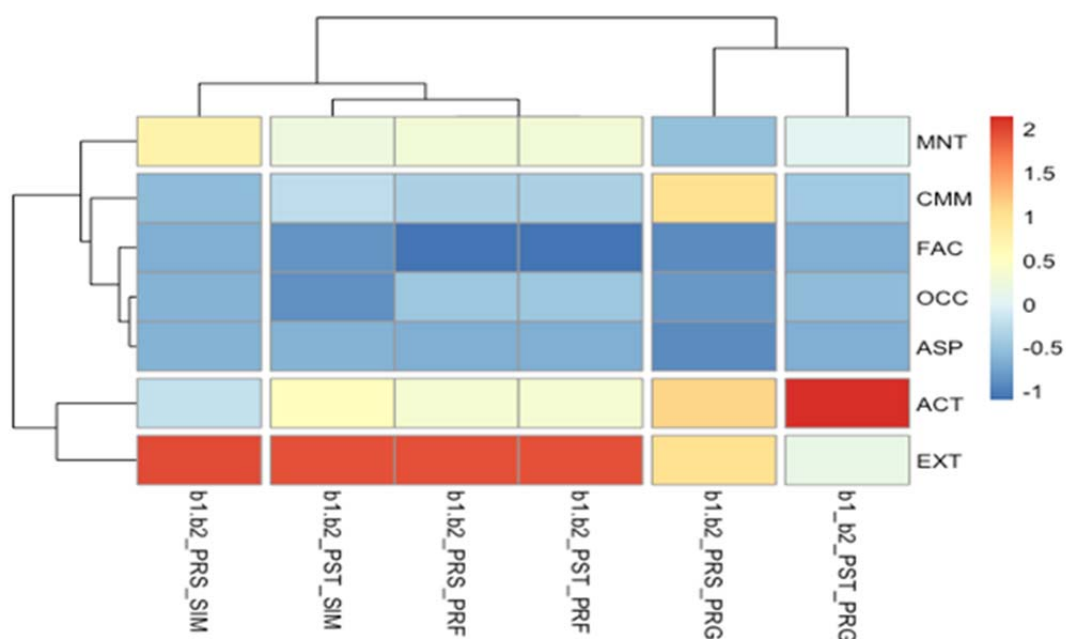
Regarding the second corpus, the figure for normalized frequencies of semantic classes of verbs as used with TA structures is given below.



Legend: PRS_SIM = Present Simple; PRS_PRG = Present Progressive; PRS_PRF = Present Perfect; PST_SIM = Past Simple; PST_PRG = Past Progressive; PST_PRF = Past Perfect; Act = Activity Verbs; Mnt = Mental Verbs; CMM = Communication Verbs; Ext = Existence or relationship Verbs; Occ = Occurrence Verbs; Fac = Facilitation or causation Verbs; Asp = Aspectual Verbs.

Figure 11. Semantic Classes of Verbs and their Distributions over six English TA in TRB1B2WrTv Corpus

Normalized frequencies in Figure 11, demonstrates overall distributions of seven semantic classes over six English TAs. On the figure, as for the Present Simple and Past Simple, number of verbs is the highest with *Existence or relationship verbs* which is followed by *Mental Verbs* used with Present Simple and *Activity Verbs* structured with Past Simple and thirdly *Communication Verbs* for both structures. As for the rest of the classes, normalized frequency counts are close to each other with slight fluctuations. Overall frequency counts express similarities with the data of A1-A2 level learners. In each case, the overall token of *activity verbs* is highest for Past Simple while *Existence or relationship verbs* is the most common with Present Simple. As for the other structures, both their overall frequencies and their distributions of over semantic classes are low when compared to Present Simple and Past Simple which signifies clues to an emerging interlanguage path between learner levels. Similar structures with verbs in similar semantic classes are aggregated with almost similar levels in both cases.



Legend: PRS_SIM = Present Simple; PRS_PRG = Present Progressive; PRS_PRF = Present Perfect; PST_SIM = Past Simple; PST_PRG = Past Progressive; PST_PRF = Past Perfect; Act = Activity Verbs; Mnt = Mental Verbs; CMM = Communication Verbs; Ext = Existence or relationship Verbs; Occ = Occurrence Verbs; Fac = Facilitation or causation Verbs; Asp = Aspectual Verbs.

Figure 12. Heatmap for Semantic Classes of Verbs and TAs in TRB1B2WrTv Corpus

Similarity matrix data represented on figure 12 extrapolates the interaction among structures and semantic classes, on which Present Progressive and Past Progressive form the initial cluster regarding TAs, and they combine with the others on the third level. As for the case of semantic classes, *Activity Verbs* and *Existence or relationship verbs* are stacked on the first cluster. Other semantic classes combine with the first two on the fifth level, which imposes divergence of grammatical behaviors of verbs within these semantic classes over TAs. On the figure, *Activity Verbs* are statistically attracted to Past Progressive, which is followed by Present Progressive. This finding emphasizes an emerging path so far. First of all, unlike frequency distributions, like it is the case for A1-A2 level learners, B1-B2 level learners also prime the use of progressive aspect with *Activity Verbs*. On the next stage, *Existence or relationship verbs* have the characteristics of being used with Present and Past Simple as well as Present and Past Perfect. Again, this case is similar to findings that of A1-A2 level learners. Learners of both levels tend to use these classes of verbs with simple aspect most. Differently, a compelling case for this level is that similar verb class preferences both for Past Simple and Present Perfect. Though in the English language Past Simple and Present Perfect signify different viewpoints on timeline regarding both time and aspect, learners seem to be unable to distinguish this and prime similar patterning for both TAs. This case is particularly interesting as also *Activity Verbs* have the second-

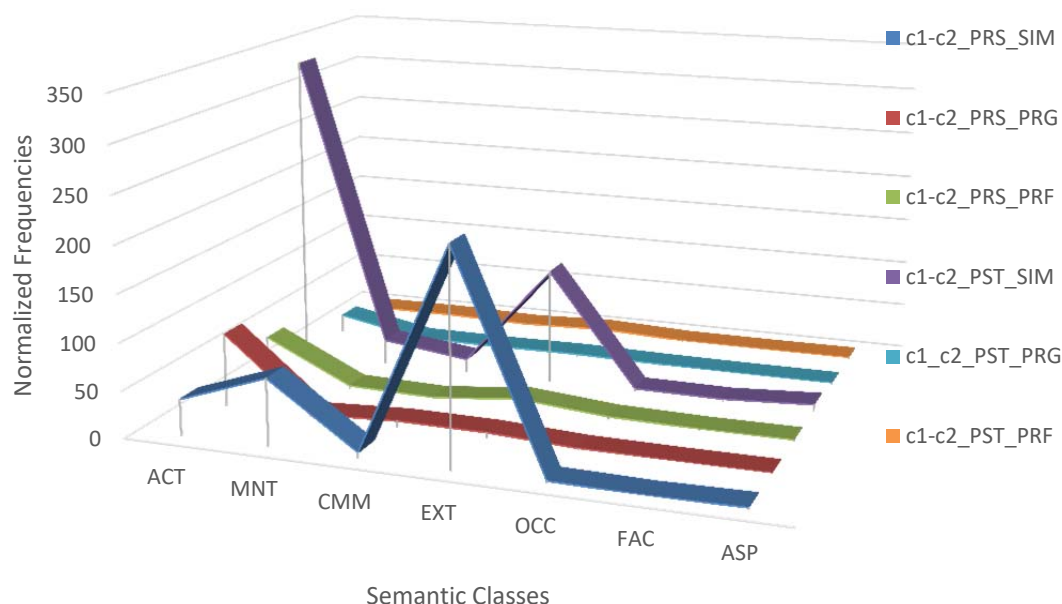
highest saliency scores with Past Simple, which is followed by the overall attraction figures with Present Perfect. On the other side of the continuum, while Present Simple is attracted to *Existence or relationship verbs*, the second correlation is between Present Simple and *Mental Verbs*. To sum, learners on this level may comprehend Present Progressive, Past Simple and Present Perfect as related regarding their grammatical profiling over different characteristics of verbs within different semantic classes. This case is expected for the learners with Turkish first language due to inference and influence from the first language, however further studies are required to propose such claim on solid grounds.

4.1.2.1.3. Distributions of Semantic Classes of Verbs along with Six Tense – Aspect Structures in TRC1C2WrTv Corpus

Finally, the last part of this section analysis the subcorpus representing C1-C2 level learners. Likewise, primary analysis is for semantic classes of verbs across their use with tense-aspect structures. Next is to assess statistical saliency among verbs within those classes and TA structures.

The figure for normalized frequencies of semantic classes of verbs as used with TA structures by C1-C2 level learners is given above.

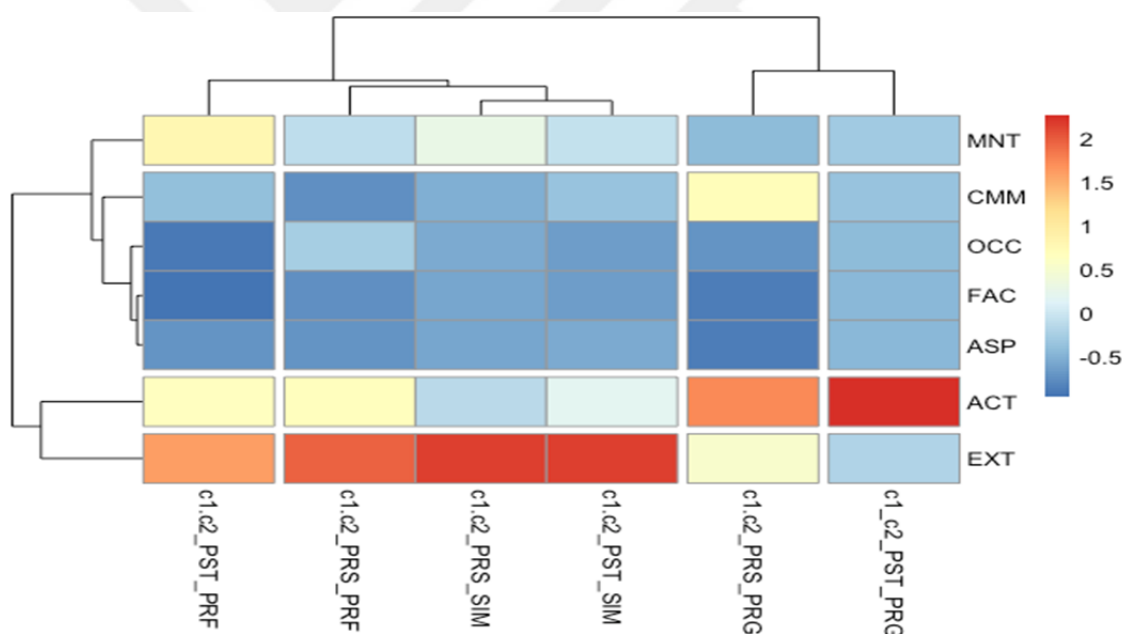
Legend: PRS_SIM = Present Simple; PRS_PRG = Present Progressive; PRS_PRF = Present Perfect; PST_SIM = Past Simple;



PST_PRG = Past Progressive; PST_PRF = Past Perfect; Act = Activity Verbs; Mnt = Mental Verbs; CMM = Communication Verbs; Ext = Existence or relationship Verbs; Occ = Occurrence Verbs; Fac = Facilitation or causation Verbs; Asp = Aspectual Verbs.

Figure 13. Semantic Classes of Verbs and their Distributions over six English TA in TRC1C2WrTv Corpus

On figure 13, *Existence or relationship verbs* again has the highest token of verbs used with Present Simple, which is followed by *Mental Verbs* and *Activity Verbs* in descending order. On the contrary, *Activity Verbs* is the primary category for the verbs used in Past Simple constructions while *Existence or relationship verbs* ranks second and following this *Communication Verbs* is the third. The figure for *Activity Verbs* almost doubled the counts for *Existence or relationship verbs*, which is the semantic class with second-highest token counts. Frequencies of other semantic classes, *Occurrence Verbs*, *Facilitation or causation Verbs*, and *Aspectual Verbs* are flattened in this level. There are almost no verbs belonging to these classes used and used with six English TAs in the analysis. Therefore; developmental interlanguage path is now more apparent, from the first level to the last, from A1-A2 to C1-C2, as similar TAs, mostly Present Simple and Past Simple and similar semantic categories, *Activity Verbs* and *Existence or relationship verbs* have the highest tokens.



Legend: PRS_SIM = Present Simple; PRS_PRG = Present Progressive; PRS_PRF = Present Perfect; PST_SIM = Past Simple; PST_PRG = Past Progressive; PST_PRF = Past Perfect; Act = Activity Verbs; Mnt = Mental Verbs; CMM = Communication Verbs; Ext = Existence or relationship Verbs; Occ = Occurrence Verbs; Fac = Facilitation or causation Verbs; Asp = Aspectual Verbs.

Figure 14. Heatmap for Semantic Classes of Verbs and TAs in TRC1C2WrTv Corpus

The heatmap below, which is based on the similarity matrix data represents the grouping among TAs and semantic classes as well as their attraction to each other across the data of C1-C2 level learners. On the heatmap, Activity Verbs and *Existence or relationship verbs* form the first level cluster over six TAs stating similar

grammatical patterning. Similarly, TAs with progressive and simple form the individual clusters which mean, though they are constructed with different time, two TAs, Present, and Past progressive have similar patterning, like it is the case for both Present and Past Simple. However, use of perfect aspect differentiates, while the grammatical behavior of Present Perfect resembles with Present and Past Simple as it combines first with the cluster of these two TAs before it merges with Past Perfect. Initially, the progressive aspect with past and nonpast time are clustered together, and for both TAs, verbs within the class of *Activity Verbs* are the most attracted ones.

Additionally, two-sided groupings are persistent, *Activity Verbs* with first progressive aspect, second with perfect aspect and lastly with simple aspect. A similar situation is evident with the *Existence or relationship verbs*. Clusters are stacked into two as, first simple aspect, Present Simple and Past Simple, is attracted most to this class by C1-C2 level learners. Second, perfect aspect, Present and Past Perfect, is ranked second regarding saliency figures for *Existence or relationship verbs*. Finally, progressive aspect, initially present progressive and then past progressive formed correlations with *Existence or relationship verbs*. To sum, while Present and Past Progressive are the most attracted ones to *Activity Verbs*, they are the least attracted ones to *Existence or relationship verbs*; likewise, Present and Past Simple have the highest saliencies with *Existence or relationship verbs*, they have the least with *Activity Verbs*. As for the other classes, figures are highly varying, as *Mental Verbs* are prime with Past Perfect most, it is Present Progressive for *Communication Verbs*. Finally, as frequencies counts of remaining classes are flatted, it is not healthy to mention saliency status of these classes with six English TAs in question.

4.2. Error Mapping of English – Tense Aspect Structures in Turkish Subcorpora

This section covers the investigation of the errors regarding six English TA uses across three learner corpora. The analysis consists of descriptive statistics provided in a hierarchical view, beginning with tense usages, which are followed by aspects and finally combining two, six English Tense Aspect structures were scrutinized. Next, lexical verbs within erroneous constructions and their saliency measures are provided. Finally, corrections for mapped errors are given to investigate further errors and their relationship with other constructions to trace the possible sources of these errors.

Table 4.

Overall Frequencies of Errors across Tenses in three Corpora

	Observed frequencies			Totals	Expected frequencies					
	TRA12W rTV	TRB12Wr TV	TRC12Wr TV		TRA12 WrTV	TRB12Wr TV	TRC12Wr TV	LL	BIC	ELL
Nonpast	28	105	96	229	12,65	107,18	109,17	15,51	-46,56	0,00002
Past	40	261	116	417	23,03	195,17	198,80	70,91	8,84	0,00009
Corpus Size	13590	115189	117328	246107						

Legend; TRA12WrTV is the subcorpora for A1A2 level learners, TRB12WrTV is the subcorpora for B1B2 level learners, TRC12WrTV is the subcorpora for C1C2 level learners; LL is the loglikelihood results, BIC is the Bayes Factor, ELL is the Effect size for loglikelihood

On table 4. total frequencies of verb tense errors across three subcorpora representing three levels of Turkish EFL learners are given in terms of both observed frequencies (raw frequencies) and expected frequencies (normalized values) along with inferential statistic results. It was observed that difference among learner levels regarding both tense usages, nonpast and past, is significant $LL = 15,51$ and $LL = 70,91$, $p < 0.05$. Nonetheless, concerning nonpast uses, there is positive evidence in favor of H_0 ($BIC = -46,56$) and the effect size is relatively small ($ELL = 0,00002$). Results signify the differences among three corpora yet with the insufficient promise of nonpast uses to state the influence of level differences over errors. On the other side, inferential statistics for past uses indicates strong evidence against H_0 ($BIC = 8, 84$; $BIC = 6-10$) yet with small ELL ($ELL = 0,00009$). Given the overall result of error analysis of verb tense uses, we can argue that the patterning of errors in the use past time across three learner levels acknowledges the influence of differences in learners' levels over erroneous structures.

Table 5.

Frequency of Errors across Aspects in three Corpora

	Observed frequencies			Totals	Expected frequencies			LL	Bayes Factor BIC	ELL
	TRA12WrT	TRB12WrT	TRC12WrT		TRA12Wr	TRB12WrT	TRC12WrT			
	V	V	V		TV	V	V			
Simpl	58	262	145	465	25,68	217,64	221,68	68,61	6,55	0,00009
Prog.	5	23	9	37	2,04	17,32	17,64	9,89	-52,18	0,00006
Perf.	5	81	58	144	7,95	67,40	68,65	5,59	-56,48	0,00001
Corpus	13590	115189	117328	246107						
Size										

Legend; TRA12WrTV is the subcorpora for A1A2 level learners, TRB12WrTV is the subcorpora for B1B2 level learners, TRC12WrTV is the subcorpora for C1C2 level learners; LL is the loglikelihood results, BIC is the Bayes Factor, ELL is the Effect size for loglikelihood

On Table 5, frequencies of verb tense errors are broken down to three aspects, simple, progressive, and perfect. Regarding LL results, for each aspect difference among three subcorpora is significant, LL = 68,61, LL = 9,89 and LL = 5,59; $p < 0.05$. However, BIC analysis expresses that only the use of simple aspect has a primary role in signifying positive evidence against H0 with small effect size, (BIC = 6,55, BIC = 2-6 and ELL= 0,00009). As for two other aspects, progressive and perfect, BIC (-52,18 and -56,48 respectively) results stand for in favor of Null Hypothesis that learners' errors regarding these two aspects although differences are statistically significant, it is not due to differences in learners' levels but may be due to chance or another factor. Therefore, following previous analysis on table 4, it can be argued that on the level of tense uses, past time and the level of aspect uses, simple aspect, differences in learners' level have the potential of introducing change in the patterning of erroneous uses across three levels.

Table 6.

Breakdown of Erroneous English Tense - Aspect Structure in three Corpora

	Observed frequencies			Totals	Expected frequencies			LL	BIC	ELL
	TRA1 2WrT V	TRB12 WrTV	TRC1 2WrT V		TRA12 WrTV	TRB1 2WrT V	TRC12 WrTV			
Prs SIM	46	194	77	317	17,50	148,37	151,13	89,09	64,26	0,00013
Prs PRG	1	1	17	19	1,05	8,89	9,06	16,94	-7,89	0,00143
Prs PERF	2	39	39	80	4,42	37,44	38,14	1,75	-23,08	0,00000
Pst SIM	21	120	75	216	11,93	101,10	102,97	17,35	-7,48	0,00003
Past PRG	0	13	9	22	1,21	10,30	10,49	3,31	-21,52	0,00007
Past PERF	0	38	8	46	2,54	21,53	21,93	27,04	2,22	0,00012
Corpus Size	13590	115189	117328	246107						

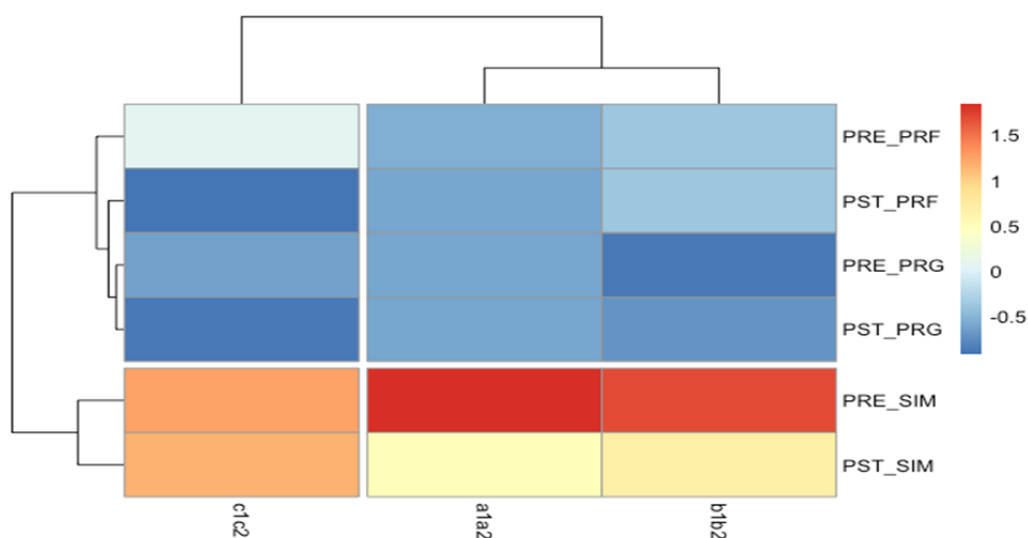
Legend; TRA12WrTV is the subcorpora for A1A2 level learners, TRB12WrTV is the subcorpora for B1B2 level learners, TRC12WrTV is the subcorpora for C1C2 level learners; LL is the loglikelihood results, BIC is the Bayes Factor, ELL is the Effect size for loglikelihood

On table 6, overall frequencies of errors observed within six English TAs across three subcorpora are provided, first of which states, per structure, differences are statistically significant based on LL results ($p < 0.05$) across corpora. Though, the highest score is for Present Simple, $LL = 89,09$; $p > 0.05$. This is followed by Past Simple, $LL = 17,35$; $p < 0.05$. Although there are figures for LL results regarding six English TAs, observed counts are either too low or no observation exists for some structures in all three corpora simultaneously. Furthermore, when analyzed in-depth, there is only one structure that is Present Simple ($BIC = 64,26$; $BIC > 10$) which reveals strong evidence against Null Hypothesis that differences regarding error patterning of this TA are not due to differences in learner levels yet is due to chance. Though effect size is not that strong ($ELL = 0,00013$), still it can be argued that learners' levels are the influential factor leading to erroneous uses in Present Simple. In contrast to a previous analysis on which differences among learners on both past time and simple aspect uses are the primary factors, when combined as English TAs, erroneous uses of present time with simple aspect has the statistical significance of introducing differences across learner levels. As for the other structures, errors pertaining to Past Progressive and Present Perfect have the least influenced by learners' levels as BIC calculations ($BIC =$

-23,06 and -21,52; $BIC < 0$) express the very strong evidence in favor of Null Hypothesis which is followed by Present Progressive with $BIC = -7,89$; $BIC = 2-6$ with relatively larger effect size when compared to others and errors with Past Simple uses, of which BIC result is 7,48. Finally, results for Past Perfect errors are in favor of refuting H_0 but statistically it does not worth more than a bare mention as $LL = 27,04$; $p < 0.05$, $BIC = 2.22$ and $ELL = 0,00012$. Additionally, token counts of erroneous uses for Present Progressive, Present Perfect, Past Progressive, and Past Perfect are rather low in A1-A2 level learners' corpus, or there is no observed frequency. Therefore, results for these structures are only limited to the comparison of B1-B2 level learners' and C1-C2 level learners' corpus.

4.2.1. Lexical Verbs and their Semantic Classification in Erroneous English Tense – Aspect Structures across three Corpora

Further analysis was applied to investigate error-prone lexical verbs in three corpora standing for three different learners' level of Turkish EFL learners. However, analysis in this section is limited to lexical verbs and copula use of the verb *Be*. It is due to the aggregation of erroneous use of auxiliary *be* across each learner corpus. Additionally, where there is no observed frequency, or it is below the threshold, they are disregarded in attraction analysis.



Legend: PRS_SIM = Present Simple; PRS_PRG = Present Progressive; PRS_PRF = Present Perfect; PST_SIM = Past Simple; PST_PRG = Past Progressive; PST_PRF = Past Perfect; A1A2;B1B2;C1C2 = Three Learner Levels

Figure 15. Heatmap for three Learner Levels and Erroneous six English TAs

Initially, figure 15 above, shows the most error-prone TAs structured with lexical verbs and their attractions across three learner corpora. In this case, regarding cluster analysis, in terms of erroneous TAs learner levels, A1A2 and B1B2 state similarities on the level of use of erroneous TA structures, which is to say, the overall token of lexical verbs used in erroneous TAs and therefore their semantic classes tend to be similar. However, as learners level steps up to C1C2, this similarity diminishes, and lexical verb preferences by learners of these levels differentiate than the other two levels. Likewise, while two most error-prone TAs are still same for three levels, namely Present Simple and Past Simple, as for the other TAs, attraction figures are different. Overall, as for the A1A2 level, Present Simple is the TAs which has the highest saliency. Next is the Past Simple, which forms the first level cluster along with Present Simple stating high level of attraction in terms of erroneous uses. However, almost no differences are observed in the use of other TAs. Corresponding concordance extracts from the corpus are illustrated as follows. These are actual excerpts representing tense – aspect use by A1A2 level learners.

TRA12WrTv Corpus (Subcorpus A)

1. Now I do n't like the <#RN> caller | colour </#RN> of my bed . I <#TV> **buy** | **bought** </#TV> it for 350 £ and I <#TV> sell | will sell </#TV> it
2. It was </#TV> on <#MD> | the </#MD> 13 th of June . My father <#TV> **give** | **gave** </#TV> me a teddy bear . I like the teddy bear
3. supposed </#TV> to be once in a lifetime ! Dear Peter I <#TV> **write** | **am writing** </#TV> this letter to you to tell <#MA>
4. went shopping for some new clothes yesterday . I <#TV> **need** | **needed** </#TV> new jeans and some black t-shirts
5. were great clothes . I bought a T-shirt that <#TV> **writes** | **has written** </#TV> on it " Kill for You " .
6. going to Miami !! Anyway , yesterday my mom **and I** <#TV> **go** | **went** </#TV><#UT> **to** | </#UT> **shopping** . There was a sale !
7. actually I <#S> bough | bought </#S> them because **they** <#TV> **give** | **were giving** </#TV><#MY> | away </#MY> Hannah Montana
8. have had </#TV> a computer for 3 years . But now my uncle <#AS><#TV> **gave** | **has given** </#TV> a new computer to me | has given me a new

9. great because it <#TV> had | has </#TV> really good graphics . I <#TV> loved | love </#TV> it <#M> | all the </#M> more because I have
10. the future . Nick , I 've seen your notice <#UP> . So | so </#UP> I <#TV> wrote | am writing </#TV> this <#RT> for | to </#RT> you . I like pop
11. and it was only £ 25 . But after that I saw that I <#TV> spent | had spent </#TV> all of my money ! I went home

Following this, B1B2 level learners also tend to use Present Simple in deviant constructions. In contrast to A1A2 level learners, saliency levels of erroneous use of Past Simple are higher but still has lower measurements than C1-C2 level learners' data. Thirdly, while almost no difference is observed in error-prone constructions of Present and Past Perfect, the saliency of erroneous use of Present Progressive is slightly higher, and it is ranked third which is followed by Past Progressive across B1-B2 level learners' corpus. These erroneous uses are illustrated below;

TRB12WrTv Corpus (Subcorpus B)

1. <#UN> term | </#UN><#FN> holiday | holidays </#FN> . Anyway , you <#TV> want | wanted </#TV> to have some information
2. I made lots of changes in my life . <#M> Like | It is like </#M> I <#TV> enter | entered </#TV> a different world .
3. <#MA> | one </#MA> but I could n't find one which <#TV> includes | included </#TV><#MD> | the </#MD><#
4. Everyone </#RP> in this <#SA> neighborhood | neighbourhood </#SA><#TV> know | knew </#TV> that no one <#TV> living
5. thought </#TV> Rabbit must <#TV> killed | have killed </#TV> . Morris <#TV> guesses | guessed </#TV> Rabbit 's <#RN>
6. special offer . Firstly , <#RV> do | are </#RV> the weekends <#TV> include | included </#TV><#MT> | in </#MT> the
7. </#MT> me . <#RP> when | When </#RP> I looked where the voice <#TV> came | was coming </#TV><#MT> | from </#MT> ,
8. are <#MV> | going </#MV> well . I am happy because I <#TV> bought | have bought </#TV> a new mountain bike <#UT> for

9. party at the end of the month . Yours faithfully I <#TV> **arranged** | **have arranged** </#TV> **a visit to the** <#FN> shoes
10. saw a <#DJ> death | dead </#DJ> body in it . It was his wife and **she** <#TV> **killed** | **had been killed** </#TV> by someone .
11. alone . It was made from <#DN> golden | gold </#DN> . **It** <#TV> **was looking** | **looked** </#TV> like <#UT> as |
12. I was very keen on <#RP> basket ball | basketball </#RP> and **I** <#TV> **was playing** | **played** </#TV><#RT> in | for
13. in the small village near the Amazon jungle . **He** <#TV> **has worked** | **had worked** </#TV> **in** a company as a civil engineer in Rio
14. take photos you should go to the festival which <#TV> **I 've mentioned** | **I mentioned** </#TV> above or <#RV> have | take </#RV> a trip to the
15. </#UT> the festival . My friends and I <#W> still <#TV><#RV> **have been speaking** | **are speaking** </#TV>| are talking </#RV>| are still

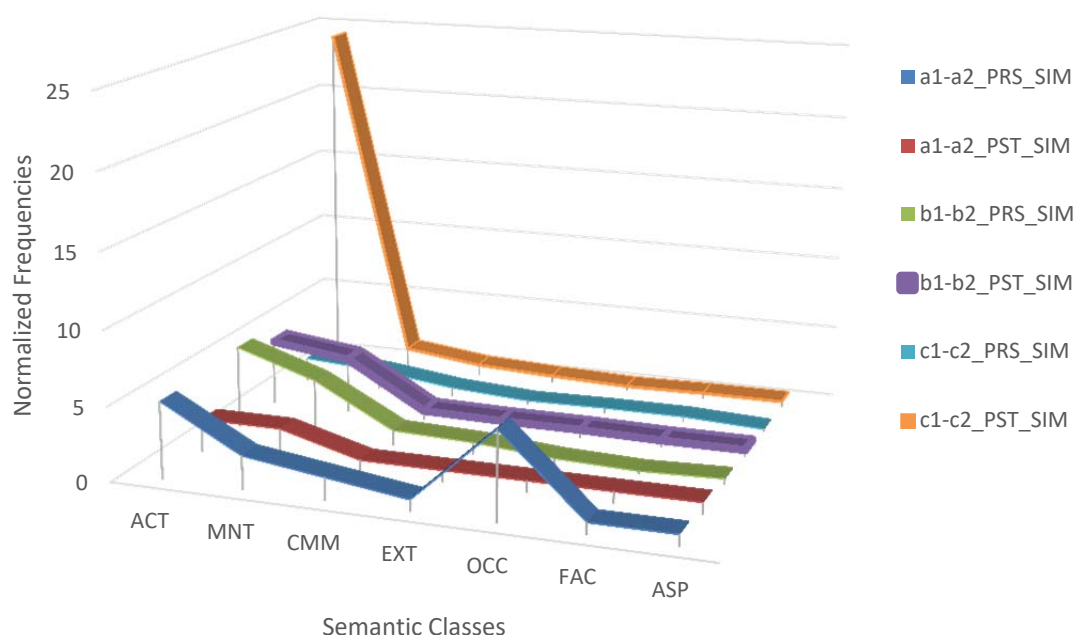
Lastly, both Present Simple and Past Simple have almost similar levels of attraction within C1-C2 level learners' corpus. Similar to previous results, these two TAs are still the ones that have the highest saliency figures. However, figures for other TAs varies significantly. To start with, the least error-prone TA is Present Perfect, following this, is the use of Present Progressive in erroneous structures. Interestingly, figures for erroneous use of Past Perfect and Past Progressive are identical for this level. Following concordance lines demonstrate corresponding erroneous uses.

TRC12WrTV (Subcorpus C)

1. a seat in the garden and was very surprised when **I** <#TV> **see** | **saw** </#TV> **him** because I was sure that nobody was living
2. of putting on weight and used to eat food which <#TV> **keeps** | **kept** </#TV> them warm and full because of the poor
3. extinct , otherwise <#UD> the | </#UD> ecology <#RV><#TV> **demolishes** | **will be demolished** </#TV>| will be destroyed </#RV> ,
4. were our parents <#MP> | , </#MP><#MA> | who </#MA><#TV> **come** | **had come** </#TV> **to watch** us and <#TV> be | were </#TV>

5. They looked <#MT> | at </#MT> each other He **quickly** <#TV> **run** | **ran** </#TV> **upstairs** and rushed into the bedroom
6. <#R> ideal person | hero </#R>| their hero is </#W> . Many times **we** <#TV> **think** | **have thought** </#TV> that we <#TV> **found** | **have found** </#>
7. eating . It is more a question of what our culture <#TV> **teach** | **has taught** </#TV> us . I have been a quite successful
8. 's getting married soon , our usual <#RN> life | routine </#RN><#TV> **changed** | **has changed** </#TV> a bit . So prepare to wake up early
9. the questions <#DY> easier | more easily </#DY> . I **hope I** <#TV> **helped** | **have helped** </#TV> **you** a bit <#RP> , good | . Good </#>
10. celebrities ' teeth . One night , the couple <#TV> just <#S> **finised** | **finished** </#S>| **had just finished** </#TV><#RD> the
11. </#MP><#AGA> none | neither </#AGA> of them could believe **they** <#TV> **made** | **had made** </#TV> it . There were times both lost hope

To sum up, Present Simple and Past Simple is two TAs which are the most error-prone constructions formed with lexical verbs in three different learner levels, A1A2; B1B2; C1C2. Regarding Progressive uses, while Past Progressive stands forward with its errors in C1-C2 level learners' data and almost no difference between Present and Past Progressive in B1-B2 level learners' corpus. Finally, as for the Perfect aspect, attraction levels for Present Perfect are higher in B1-B2 while it is Past Perfect in C1-C2 learners' corpus that is the most error-prone structure formed with perfect aspect. However, no difference is observed when Present and Past Perfect compared within B1-B2 level learners' data while figures are different in C1-C2 level learner corpus. It is higher for Past Perfect than Present Perfect; it is also the highest when compared to other groups.



Legend: PRS_SIM = Present Simple;; PST_SIM = Past Simple;; A1A2;B1B2;C1C2 = Three Learner Levels; Act = Activity Verbs; Mnt = Mental Verbs; CMM = Communication Verbs; Ext = Existence or relationship Verbs; Occ = Occurrence Verbs; Fac = Facilitation or causation Verbs; Asp = Aspectual Verbs.

Figure 16. Semantic Classes of Verbs and their Distributions over six Erroneous English TAs across three Learner Corpora

Due to high saliency figures between learner corpora and error-prone TAs are limited to only two English TAs; Present Simple and Past Simple, investigation of verbs and semantic classes were scaled down to these two constructions. Additionally, in some cases, frequency counts of erroneous TAs are quite low, or no observation exists at all. Therefore, these structures were also eliminated from the study. Therefore, on figure 15, regarding A1-A2 level learners' use of Present and Past Simple tense, verbs are nested initially within the semantic class of Occurrence Verbs then in Activity Verbs for the Present Simple. It is the semantic class of Mental Verbs with the highest token counts of erroneous use of Past Simple by A1-A2 level learners. Next is the B1-B2 level learners, whose figures for both Present Simple and Past Simple demonstrate a similar trend. In both observations, verbs within the class of Activity Verbs is prone to erroneous uses by B1-B2 level learners, and it is followed by Mental Verbs with the second-highest token counts of errors for both TAs. Finally, observations for C1-C2 level learners express striking differences compared to other levels. The figure for the semantic class of Activity Verbs used within erroneous Past Simple constructions is significantly higher when compared to the overall token of other semantic classes

within-group and also when compared to figures across other learners' data. Then, there is a sharp drop in numbers for other semantic classes.

4.2.2. Correction for Erroneous English Tense – Aspect Structures across three Subcorpora

Along with the erroneous tense aspect uses, correction for each error in the concordance line were manually searched for, and a list for corrections for six English TAs in the study was provided for each level. So far in the study, regarding error analysis, only uses tagged as erroneous in the three learner corpora were investigated. However, following Ellis (2009) and Reznicek (2013), errors are provided with their assumed corrected forms. Such an approach is also expected to provide more insight into problematic cases as utilization of pre-defined errors tags to annotate learner data is limited in a sense to express direction of erroneous uses. Indeed, as stated by Ellis (1994), errors in learner data identified in most cases based on target language norms. Throughout the previous analysis, rather than focusing on corrected target forms, investigations are based on the interplay of semantic features of verbs and grammatical profiling of English Tense – Aspect structures. However, in this section, taking one step further, errors are provided as error-pairs, erroneous uses, and their assumed corrected forms.

Table 7.

Cross Tabulation for Tense - Aspect Errors and Correction in the TRA1A2WrTv Corpus

Tense - Aspect	Corrections							Total
	Pre_SIM	Pre_PRG	Pre_PRF	Pst_SIM	Pst_PRG	Pst_PRF	Modals	
Prs SIM	0	3	2	38	1	0	2	46
Prs PRG	1	0	0	0	0	0	0	1
Prs PRF	2	0	0	0	0	0	0	2
Pst SIM	17	1	2	0	0	1	0	21
Pst PRG	0	0	0	0	0	0	0	0
Pst PERF	0	0	0	0	0	0	0	0
Total	20	4	4	38	1	1	2	70

On table 7, the raw number of erroneous English tense-aspect structures and correction for each structure are given. Of all the corrections, 54.3% is Past Simple tense, which is followed by Present Simple tense, 28.6 %. To start with, Present Simple tense has the highest number of erroneous token counts (N = 46), and the most common erroneous-correction pair is Past Simple for Present Simple, 54.3%. Secondly, of all the erroneous use of Past Simple tense (N = 21) is corrected with Present Simple, as the percentage of total number correction for this pair is 24.3% which means 81% of all the corrections regarding Past Simple. (See also Appendix 2 for overall percentages). Followings are concordance lines representing both errors and their expected forms in A1-A2 level learners' corpus.

TRA12WrTv corpus (Subcorpus A)

1. were great clothes . I bought a T-shirt that <#TV> **writes** | **has written** </#TV> on it " Kill for You " . It is black . And
2. my black coat <#TV> costs | cost </#TV> 70 pound . I think they <#TV> **are** | **were** </#TV> too expensive but I <#TV> **need** | **needed** </#TV>
3. for my trip on Sunday . They cost only £ 30 . They <#TV> **are** | **were** </#TV> very cheap . See you later . Hi , Yesterday I
4. 've ever bought . And I bought a white shirt . <#TV> **They 're** | They **were** </#TV> very cheap . They cost only £ 30 . Love
5. for me . And it <#TV> **is n't** | **was n't** </#TV> expensive <#MP> it | . It </#MP><#TV> **costs** | **cost** </#TV> £ 5 <#MP> | . </#MP> See you soon <#MP>
6. <#MT> | to </#MT> me by Taha was my favourite . I <#TV> **have liked** | **like** </#TV> it because I had already decided to buy a
7. flowers . I bought it because all of my skirts <#TV> **have been** | **are** </#TV> old and also it <#TV> **is** | **was** </#TV> very cheap
8. Because | , because </#RP> I do n't get up early . My job <#TV> **is starting** | **starts** </#TV> in the evening
9. have had </#TV> a computer for 3 years . But now my uncle <#AS><#TV> **gave** | **has given** </#TV> a new computer to me | has given me a new

Actual excerpts from as used by learners demonstrate the variation in terms of both verb choices and variation in error-prone pairs. While keywords in red are learners' errors, ones in bold are the expected forms tagged by the Cambridge expert taggers. Though observation of patterning is limited due to limited number of concordance given above, present simple-past simple error prone is the most common in the use of copula BE. Actually, it is the scrutinizing of the copula BE makes the variation on figure regarding A1A2 level learners. Rather than utilizing lexical verbs, they tend to prime the use of copula be which is both expected due to their levels. It may be also due to exam requirement as well which is discussed further in the discussion section of the study.

Table 8.

Cross Tabulation for Tense - Aspect Errors and Correction in the TRB1B2WrTv Corpus

Tense- Aspect	Corrections						Modals	Total
	Pre_SIM	Pre_PRG	Pre_PERF	Pst_SIM	Pst_PRG	Pst_PERF		
Pre SIM	0	12	6	137	2	2	35	194
Pre PRG	1	0	0	0	0	0	0	1
Pre PERF	3	1	0	31	0	4	0	39
Pst SIM	43	3	33	0	4	34	3	120
Pst PRG	1	0	0	11	0	1	0	13
Pst PERF	0	1	1	35	0	0	1	38
Total	48	17	40	214	6	41	39	405

Table 8 reveals the raw numbers of erroneous English tense-aspect structures as used by B1-B2 level learners and the corrections for such errors. On the table, the most error-prone structure is Present Simple (N = 194), which is also followed by errors with Past Simple tense, (N = 120). Likewise, the most common correction for all the erroneous structures is Past Simple, 52.8%. Next is the Present Simple 11.9%, as the correction for all the TA errors, which is followed by Past Perfect with a percentage of

10.1%. The most common error-correction pair for this level is Past Simple for Present Simple. Of the total correction, 33.8% is the Past Simple for Present Simple. In other words, almost 71% of all the Present Simple tense errors are corrected with Past Simple. Next, Present Simple for Past Simple is the second most common pair, as 10.6% of all the corrections and 35.8% of the all correction for Past Simple is Present Simple. Finally, the third most common pair for six English tense-aspect structures for this level is Past Simple for Past Perfect, which is 8.6% of all the corrections, and it is 92.1% for Past Perfect. (See also Appendix 3 for overall percentages). Errors along with their corrections corresponding to the results given in Table 8 are demonstrated in the concordance lines below;

TRB12WrTv corpus (Subcorpus B)

1. in the small village near the Amazon jungle . He <#TV> **has worked** | **had worked** </#TV> in a company as a civil engineer in Rio
2. was pretty nervous and excited . My friends and I <#TV> **have been** | **were** </#TV> **taken** <#U> to the | </#U> backstage where we
3. there </#MY> . More , than five <#S> thusand | thousand </#S> people <#TV> **have been** | **were** </#TV> there . I think <#UP> , | </#UP><#RP> The | the </#RP>
4. this summer for financial <#RN> problems | reasons </#RN> . I <#TV> **have done** | **did** </#TV><#MQ> | some </#MQ> farm work when I was 17 and I
5. take photos you should go to the festival which <#TV> **I 've mentioned** | **I mentioned** </#TV> above or <#RV> have | take </#RV> a trip to the
6. your letter <#UP> , | </#UP> about the trip <#TV> **we 've** <#IV> **planed** | **planned** </#IV>| we 're planning </#TV> to <#RV> do | make </#RV><#MP> it | . It </#MP>
7. It was very strange because all three women <#TV><#AGV> **wears** | **wear** </#AGV>| **were wearing**
8. man to have <#W> a such | such a </#W> good girlfriend . Then he <#TV><#AGV> **fall** | **falls** </#AGV>| **fell** </#TV> into
9. turning </#FV>| going </#RV> back <#MT> | to </#MT> his country he <#TV> **have** | **had** </#TV> to see that amazing jungle

10. after that incident . Therefore my parents <#TV> **had changed** | **changed** </#TV> their <#RN> idea | plan
11. asked for some details about the cycling . You <#TV> **had written** | **wrote** </#TV> that we can do 80 <#SA>
12. happiness . My children <#TV> did say | said </#TV> that **they** <#TV> **had wanted** | **wanted** </#TV> to go to the Festival <#MD>
13. A total of 60 per cent of those questioned <#TV> **had suggested** | **suggested** </#TV> that we should find
14. excitement of seeing <#UP> , | </#UP> what people <#TV> **had used** | **used** </#TV><#FN> thousand | thousands
15. Bloom . On Sunday the group Radiant took part and <#TV> **were singing** | **sang** </#TV> the best songs
16. so many problems . They were best friends . Alice <#TV> **was thinking** | **thought** </#TV> so
17. are <#MV> | going </#MV> well . I am happy **because I** <#TV> **bought** | **have bought** </#TV> a new mountain bike <#UT> for
18. and I like to work in <#FN> summers | summer </#FN> . In fact , **I** <#TV> **had** | **have** </#TV> **worked** <#RT> in | at </#RT> this kind

When analysed in comparison to subcorpus A, a change in sentence variation and complexity is clearly observable based on the concordance lines from corpus B. Additionally, the use of past perfect tense in many cases is evident. Additionally, an overall tendency to use lexical verbs than copula BE is demonstrated in these excerpts.

Table 9.

Cross Tabulation for Tense - Aspect Errors and Correction in the TRC1C2WrTv

Tense - Aspect	Corrections							Total
	Pre_SIM	Pre_PRG	Pre_PRF	Pst_SIM	Pst_PRG	Pst_PRF	Modals	
Pre SIM	0	4	16	45	0	0	12	77
Pre PRG	16	0	0	1	0	0	0	17
Pre PRF	4	3	0	32	0	0	0	39
Pst SIM	31	1	21	0	1	21	0	75
Pst PRG	0	0	0	8	0	0	1	9
Pst PERF	0	0	0	8	0	0	0	8
Total	51	8	37	94	1	21	13	225

On table 9, the most error-prone TA is Present Simple (N = 77), which is followed by with a slight difference, Past Simple (N = 75). Next is the Present Perfect, which has the third-highest token counts of erroneous use (N = 39). Similarly, of all the correction in for C1-C2 level learner corpus, 41.8% is Past Simple, while the second most common is Present Simple, 22.7%, and lastly Present Perfect, 16.4%. The most common error-correction pair is Past Simple for Present Simple, which consists of 20% of all the corrections, which is 58.4% of all the correction for Present Simple. Next one is Past Simple for Present Perfect, which has the percentage of 14.2% of all the correction pairs. Similarly, that is 82.1% of all the corrections for Present Perfect. Lastly, Present Simple for Past Simple is the third most common pair, which constitutes 13.8% of all the correction pairs while the figure is %41.3 for all the corrections of Past Simple. These extracts from C1-C2 level learners' corpus considering error-prone pairs are given below.

TRC12WrTv corpus (Subcorpus C)

1. at the age of twenty , <#MD> | these </#MD> people <#TV> **have changed** | **changed** </#TV> their diet so that they
2. thing I want to tell you is that <#UP> ; | </#UP> I <#TV> **have made** | **made** </#TV> a lot of phone calls during
3. She was living in that house before my friend <#TV> **has moved** | **moved** </#TV><#MY> | there </#MY>
4. learned a lot from him <#RP> , moreover | . Moreover </#RP> I <#TV> **have worked** | **worked** </#TV><#RT> in | on </#RT>
5. lessons <#MP> | , </#MP> which our members think <#TV> **have been** | **were** </#TV> most beneficial , it would
6. it is obvious <#UC> that | </#UC> where you <#TV> **have gone** | **went** </#TV> wrong
7. <#R> missing | not imposed </#R> . Decisive cooperation <#TV> **has been** | **was** </#TV> **the greatest** <#RN> lack
8. clothes . Leisure time : At the weekends **we** <#W><#TV> **have been** | **went** </#TV> all | all went </#W><#
9. TAN TUNCAG CAMDEN CRAWL ' 98 Camden Town <#TV> **is hosting** | **hosts** </#TV> several events every year <#MP> | , </#MP>

10. a day . Rainbow Ltd and Xanadu Express <#TV> **are offering** | **offer** </#TV>
different possibilities , while
11. But on the other hand I have to mention that they <#TV> **are going** | **go** </#TV>
too far sometimes to <#RV> take | get </#RV>
12. talking and understanding . Each time you <#TV> **are doing** | **do** </#TV> **this** ,
your English <#S> definetly | definitely </#S>
13. a seat in the garden and was very surprised when I <#TV> **see** | **saw** </#TV>
him because I was sure that nobody was living
14. extinct , otherwise <#UD> the | </#UD> ecology <#RV><#TV> **demolishes** |
will be demolished </#TV>| will be destroyed </#RV> ,
15. treated me like him . He respected me for **what I** <#TV> **am** | **was**
</#TV><#S> eventhoug | even though </#S> I was a worthless
16. the money you will pay . I would be glad if you <#TV> **mention** | **mentioned**
</#TV> that . The last thing is where we are
17. <#R> ideal person | hero </#R>| their hero is </#W> . Many times **we** <#TV>
think | **have thought** </#TV> that we <#TV> found | have found </#

These concordance lines are from subcorpus C, representing C1C2 level learners. On the actual examples of the use, primacy of present perfect (in red) is emphasised as well as its error pair, past simple (in bold). Again these lines state the variation of sentence patterning and verb choices when compared to lines from other subcorpora. Similar to B1B2 level learners, priming of lexical verbs rather than copula BE is evident. It is to say that this is expected from different aspect. Learner levels in question are the actual levels assested by the exam scores not by the statements of the learners theirown levels. C1C2 level learners are able to provide a rich and rather complex sentence patterning. However, again not only participant related factor but also contextual and external factors can be in play influcing the patterning. These error-prone pairs may be also due to tagger factors and contextual requirements imposed by the exams learners take. A detailed discussion is provided regarding the subject in the discussion and conclution section of the study (see chapter V).

4.3. Remedial Teaching for English Tense Aspect Structures

The third section of the current chapter investigates overall effects of the remedial teaching applied in the study comparing two groups of students of which one received cognitive-grammar based descriptions and materials as extra while the other group received only traditional descriptions based on the coursebook and grammar book. Above are the results of experimental study design which initially provides overall performances of students of the Present Simple and Present Progressive tests. Secondly, similar analyses procedures were applied to Past Simple and Present Perfect tense, and results were provided.

4.3.1. Result of the Remedial Teaching of Present Simple and Present Progressive

The maximum exam score a student can get for the whole written grammar test was 36 point. Table 10 below represents the mean scores along with standard deviations for both groups.

Table 10.

Means and standard deviations for both Groups for the First Tests

Group Statistics					
	Control and Test Group	N	Mean	Std. Deviation	Std. Error Mean
Pretest _ SIM-PRG	Control	33	20.5455	5.05650	.88022
	Intervention	38	17.4211	4.52997	.73486
Posttest _ SIM-PRG	Control	33	24.6667	5.39483	.93912
	Intervention	38	23.5526	4.27246	.69308

The data states that both groups involved in the analysis improved in terms of overall exam performance. As for the control group, the difference between pretest and posttest mean scores is 4,12 points, $M = 20.5$ for the pretest and $M = 24.7$ for the posttest. As for the intervention group, the difference is somewhat higher as it is 6,13 points, $M = 17.42$ for the pretest and $M = 23.6$ for the posttest.

To assess statistical significance between two groups after the intervention, one-way ANCOVA test was applied, and certain assumptions were tested regarding the groups' data, and results were showed in the following section. Starting with,

unadjusted means (unless otherwise stated) for overall test performance was greater in the control group ($M = 24,7$ $SD = 5.4$) compared to intervention group ($M = 23,6$ $SD = 4,3$). Additionally, As shown in figure 16 below, there was a linear relationship between pre- and post-intervention for each group, as assessed by visual inspection of a scatterplot.

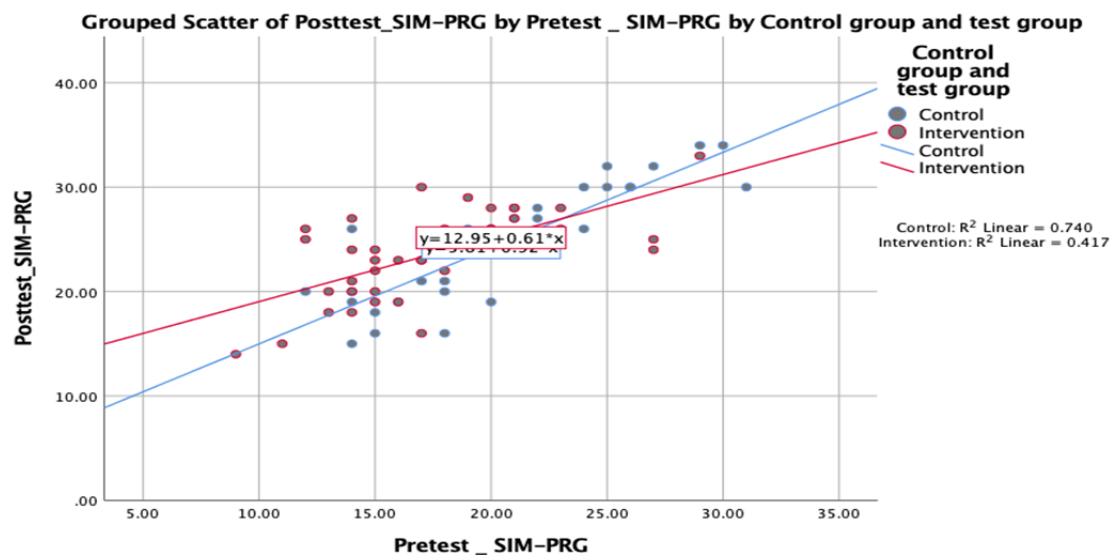


Figure 17. Test of Linearity Assumptions for Pretest and Posttest Between Groups

There was homogeneity of regression slopes as the interaction term was not statistically significant, $F(1, 67) = 3,966$, $p = .51$. Moreover, also, standardized residuals for the interventions were normally distributed, as assessed by Shapiro-Wilk's test ($p > .05$). Additionally, there was homogeneity of variances, as assessed by Levene's test of homogeneity of variance ($p = .721$). There were no outliers in the data, as assessed by no cases with standardized residuals greater than ± 3 standard deviations.

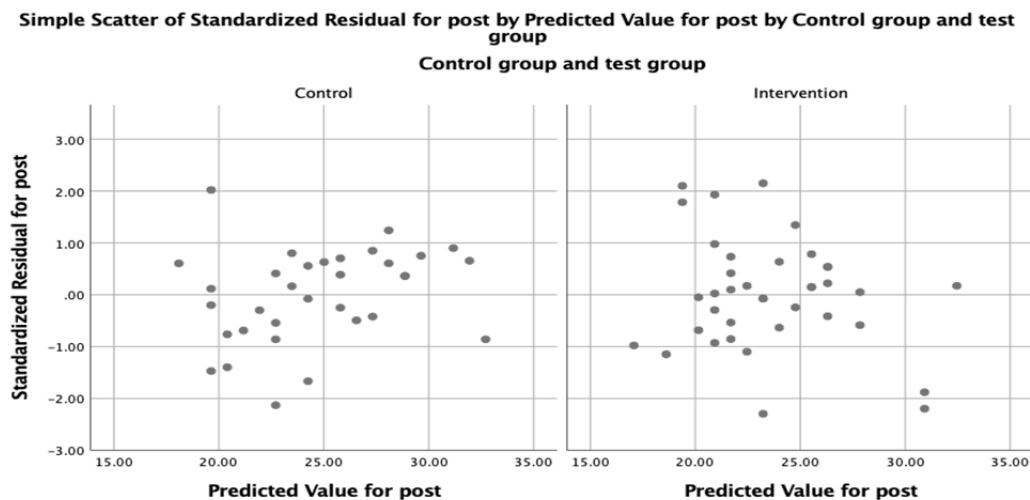


Figure 18. Test of Homoscedasticity across two Learner Groups for first Treatment

There was homoscedasticity, as assessed by visual inspection of the standardized residuals plotted against the predicted values.

Table 11.

Result of Adjusted Means of Test Performances of Learners for Present Simple and Present Progressive

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	954.917 ^a	2	477.459	48.190	.000	.586
Intercept	372.814	1	372.814	37.628	.000	.356
Pretest_SIM-PRG	932.997	1	932.997	94.168	.000	.581
Group	26.447	1	26.447	2.669	.107	.038
Error	673.731	68	9.908			
Total	42765.000	71				
Corrected Total	1628.648	70				

a. R Squared = .586 (Adjusted R Squared = .574)

Furthermore, adjusted means are presented, unless otherwise stated. Overall test performance regarding use of Present Simple and Present Progressive was greater in intervention group ($M = 24,7$, $SE = .523$) compared to the control group ($M = 23,4$ $SE = .564$). After adjustment for pre-intervention, there was not a statistically significant difference in post-intervention regarding exam results, $F(1, 68) = 26,5$ $p > .001$, partial $\eta^2 = .038$).

Table 12.

Post-hoc Analysis Results of Adjusted Means of Test Performances of Learners for Present Simple and Present Progressive

(I) Control group and test group	(J) Control group and test group	Mean Difference (I-J)	Std. Error	Sig. ^a	95% Confidence Interval for Difference ^a	
					Lower Bound	Upper Bound
Control	Intervention	-1.289	.789	.107	-2.863	.285
Intervention	Control	1.289	.789	.107	-.285	2.863

Based on estimated marginal means

a. Adjustment for multiple comparisons: Bonferroni.

Finally, overall whole exam results were statistically significantly greater in the intervention group ($M = 24,7$, $SE = .523$) compared to the con group ($M = 23,4$ $SE = .564$), a mean difference of -1.289 , 95% CI $[-2.863, .285]$, $p < .001$.

An ANCOVA was run to determine the effect of a controlled trial and cognitive grammar induced instruction on post-intervention exam results regarding the use of Present Simple and Present Progressive after controlling for pre-intervention exam results. After adjustment for pre-intervention test scores, there was a statistically significant difference in post-intervention test scores between groups, $F(1, 68) = 26,5$ $p > .001$, partial $\eta^2 = .038$. Post hoc analysis was performed with a Bonferroni adjustment. Post-intervention test scores were not statistically significantly greater in the intervention group vs control group, a mean difference of -1.289 , 95% CI $[-2.863, .285]$, $p < .001$.) (see also Table 10).

4.3.2. Result of the Remedial Teaching of Past Simple and Present Perfect

The maximum exam score a student can get for the whole written grammar test was 29 point. Table 13 below represents the mean scores along with standard deviations for both groups.

Table 13.

Means and standard deviations for both Groups for the Second Tests

Group Statistics					
	Control and Test Group	N	Mean	Std. Deviation	Std. Error Mean
Pretest_SIM_PST	Control	33	17.4242	3.25989	.56747
	Intervention	38	17.2632	3.84626	.62395
Posttest_SIM_PRF	Control	33	22.5455	2.98005	.51876
	Intervention	38	21.9737	2.63538	.42752

The data states that both groups involved in the analysis improved in terms of overall exam performance. As for the control group, the difference between pretest and posttest mean scores is 5.12 points, $M = 17.5$ for the pretest and $M = 22.5$ for the posttest. As for the intervention group, the difference is slightly lower as it is 4.71 points, $M = 17.26$ for the pretest and $M = 22.0$ for the posttest.

To assess statistical significance between two groups after the intervention, one-way ANCOVA test was applied, and certain assumptions were tested regarding the groups' data, and results were showed in the following section. Starting with, unadjusted means (unless otherwise stated) for overall test performance was greater in the control group ($M = 22,5$ $SD = 2.9$) compared to intervention group ($M = 21,9$ $SD = 2.6$). Additionally, As shown in figure 19 below, there was a linear relationship between pre- and post-intervention for each group, as assessed by visual inspection of a scatterplot.

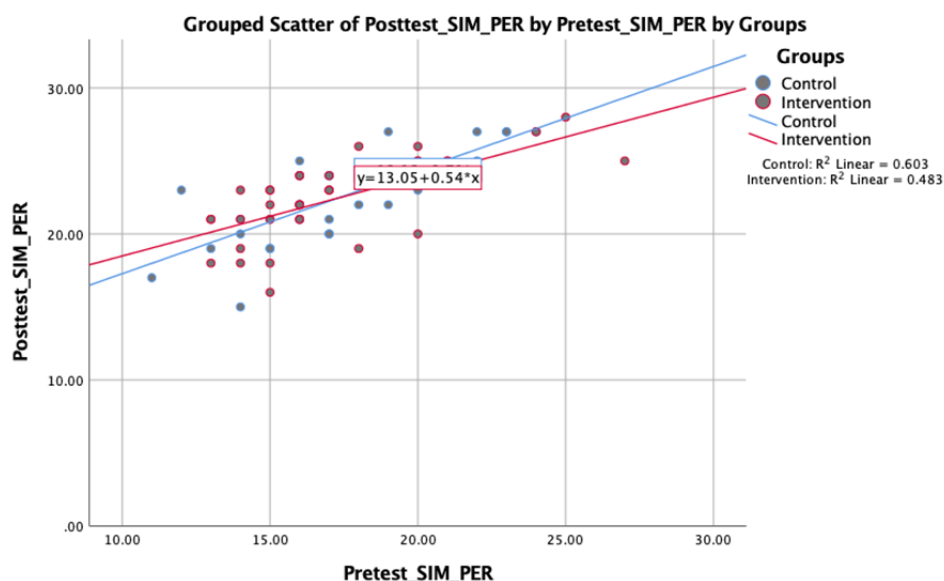


Figure 19. Test of Linearity Assumptions for Pretest and Posttest Between Groups

There was homogeneity of regression slopes as the interaction term was not statistically significant, $F(1, 67) = 6.164, p = .143$. Moreover, also, standardized residuals for the interventions were normally distributed, as assessed by Shapiro-Wilk's test ($p > .05$). Additionally, there was homogeneity of variances, as assessed by Levene's test of homogeneity of variance ($p = .781$). There were no outliers in the data, as assessed by no cases with standardized residuals greater than ± 3 standard deviations.

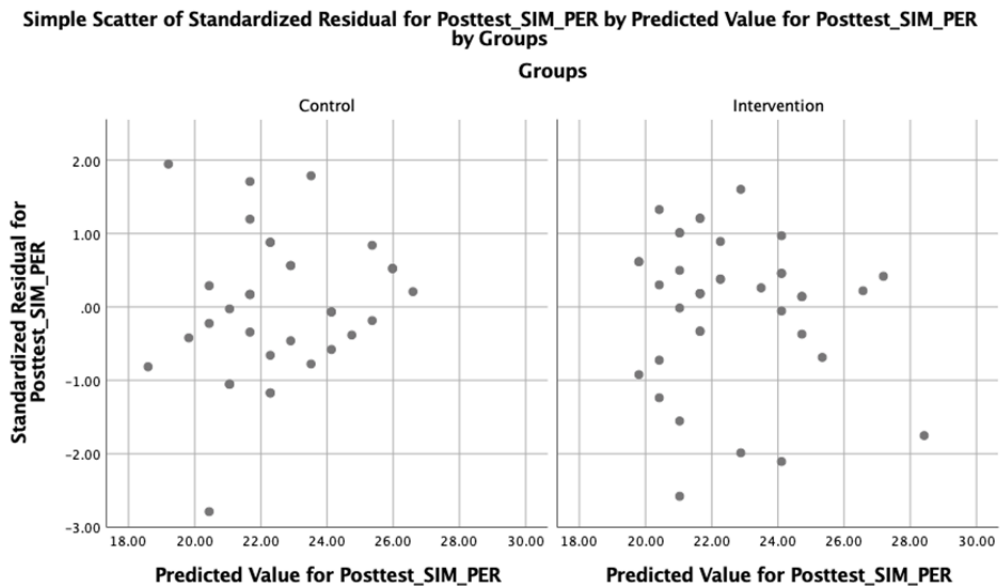


Figure 20. Test of homoscedasticity across two Learner Groups for Second Treatment

There was homoscedasticity, as assessed by visual inspection of the standardized residuals plotted against the predicted values.

Table 14.

Result of Adjusted Means of Test Performances of Learners for Past Simple and Present Perfect

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	213.767	2	106.884	21.815	.001	.391
Intercept	544.252	1	544.252	111.084	.001	.620
Pretest_SIM-PRF	207.993	1	207.993	42.452	.001	.384
Group	4.304	1	4.304	.879	.352	.013
Error	333.162	68	4.899			
Total	35663.000	71				
Corrected Total	546.930	70				

R Squared = .535 (Adjusted R Squared = .521)

Furthermore, adjusted means are presented, unless otherwise stated. Overall test performance regarding use of Past Simple and Present Perfect was greater in control group ($M = 22,5$ $SE = .385$) compared to the intervention group ($M = 22,01$ $SE = .359$). Additionally, regarding both groups, after adjustment for pre-intervention, there was not a statistically significant difference in post-intervention regarding exam results, $F(1, 68) = .879$ $p > .001$, partial $\eta^2 = .013$.

Table 15.

Post-hoc Analysis Results of Result of Adjusted Means of Test Performances of Learners for Past Simple and Present Perfect

(I) Control group and test group	(J) Control group and test group	Mean Difference (I-J)	Std. Error	Sig. ^a	95% Confidence Interval for Difference ^a	
					Lower Bound	Upper Bound
Control	Intervention	.494	.527	.352	-.557	1.545
Intervention	Control	-.494	.527	.352	-1.545	.557

Based on estimated marginal means

a. Adjustment for multiple comparisons: Bonferroni.

Finally, overall whole exam results were statistically significantly greater in the control group ($M = 22,5$ $SE = .385$) compared to the intervention group ($M = 22,01$ $SE = .359$). a mean difference of .494, 95% CI [-1.545, .557], $p < .001$.

An ANCOVA was run to determine the effect of a controlled trial and cognitive grammar induced instruction on post-intervention exam results regarding the use of Past Simple and Present Perfect after controlling for pre-intervention exam results. After adjustment for pre-intervention test scores, there was not a statistically significant difference in post-intervention test scores between groups, $F(1, 68) = . p > .001$, partial $\eta^2 = .013$. Post hoc analysis was performed with a Bonferroni adjustment. Post-intervention test scores were not statistically significantly greater in the control group compared to the intervention group, a mean difference of .494, 95% CI [-.557, .1545], $p > .001$. (see also Table 15).

CHAPTER V

DISCUSSION AND IMPLICATIONS

5.1. Discussion of the Findings

This study investigated the use of six English tense-aspect structures, Present Simple, Present Progressive, Present Perfect, Past Simple, Past Progressive, and Past Perfect by Turkish EFL learners. In the study, Turkish learners subcorpus of Cambridge Learner Corpora was utilized, and for the sake of purpose of the study, three subcorpora representing three learner levels, A1-A2, B1-B2, and C1-C2 were created under the CLC Turkish Learners subcorpus. Learners' levels were defined based on their exams scores, rather their statement of their proficiency levels. Therefore, these levels represent exam performances of the learners, their assessments and labeling the learners level based on the CEFR guidelines regarding their overall exams scores. These three subcorpora consist of answers to question asked in all the exams provided by Cambridge University Press and Cambridge English Language Assessment. Criteria for creation of subcorpora are defined as, first of all, they are written output by secondary school and college students, as their registers formal, informal, mixed and neutral/unmarked. Additionally, styles of learners' performances cover advice, application/response, argumentative/opinion essays, business-related texts, complaint/apology/response, critical essays, descriptive/creative autobiographical and finally informative/news texts. Their formats can be any of the followings; article, composition/essay, informative/instructional text, letter/references, note/email/memory, proposal, reports, reviews, stories or answers to surveys/questionnaires and forms.

All the verbs in finite position used with English tense-aspect structures in question were scrutinized, their frequencies across three subcorpora were calculated, normalized, and both descriptive and inferential statistics were applied. Descriptive statistics covers the comparison of frequencies of all the verbs used with six English tense-aspect structures to reveal if differences in learners' level is an influencing factor regarding learners' tense – aspect choices. Additionally, in their preferences of tense – aspect structures, their verb choices were also investigated as after extraction of overall frequencies of all the verbs within tense aspect structures, these verbs were classified according to Biber's (1999) classification of English verbs based on their semantic features. Biber (1999) grouped English verbs into seven semantic classes; *Activity*

Verbs, Mental Verbs, Communication Verbs, Existence or relationship Verbs, Occurrence Verbs, Facilitation Verbs, and Aspectual Verbs. Comparison of finite verbs as used by Turkish EFL learners includes classification of verbs into these semantic classes and learners' tense – aspect structure preferences with verbs within these semantic classes across three learner levels.

Additionally, the second level of the statistical analysis utilizes cluster analysis to observe grammatical behavior of verbs, thereby semantic classes over six English tense-aspect structures. Furthermore, this analysis provided data to discover saliency levels between learner levels and six English tense-aspect structures, between learner levels and semantic classes of verbs and finally across learner levels between six English tense-aspect structures and seven semantic classes of verbs. Although this analysis itself is not mainly focused on the exploration of the erroneous tense aspect uses based on scrutinizing error tagging schema, the authenticity of uses by Turkish EFL learners were questioned. With a usage-based approach to grammatical descriptions of target language norms, the interplay of semantic features of verbs and tense-aspect structures has a pivotal role in determining the notion of construal. Regarding imagining and portraying a situation, learners' verbs preferences, hence these verbs' semanticity, interact with the learners' viewing frame of the situation. While learners designate a conceptual unit or a situation, they are also assumed to be sensitive to conversational implicatures. When they form the construal of a situation, they mentally scan the intended contextual effect, eventually derive at the functioning of grammatical forms over lexical forms resulted in the grammaticalization of constructions. The overall process is proposed to yield priming of particular tense – aspect structures over particular lexical items. That is to say, saliency levels between form and meanings, between learners' levels and form, between learners' level and semantic classification of verbs enable to analyze grammaticalization process within learners' interlanguage.

Furthermore, error annotation based on pre-defined error tags in learner corpora is there to support the previous analysis by pointing out the most problematic cases in interlanguage development, particularly marking form-focused influencing factor for grammaticalization. In addition to extraction of erroneous uses relying on error tagging of learner data, assumed correction were also taken into consideration. Supporting view of Ellis (2009), later Reznicek, Lüdeling, and Hirschmann (2013) an error can only be defined with its reconstruction of corrected form. However, discussion over the

reconstruction of errors is still an unresolved issue in learner data (see Fitzpatrick and Seegmiller, 2004; Reznicek, Lüdeling and Hirschmann, 2013), nonetheless, this study is in favor of accepting CLC annotators' rate of correction and assuming there is an unambiguous way of finding reconstruction errors and in turn the errors that result from these corrections. Finally, All the errors scrutinized in this study are free of morphological errors, and they are errors in the sense that they represent non-authentic uses, in other words, incorrect tense aspect choices required by the context. Therefore, the focus is on the actual use of six English tense-aspect structures in both authentic and non-authentic ways.

Finally, the last section of the study provides results from remedial teaching for four English tense-aspect, namely, Present Simple, Present Progressive, Past Simple, and Present Perfect. Likewise, during the treatment stage, the actual focus was also on the authentic use of grammatical forms rather than grammatical form-focused errors. Following Langacker (2006) cognitive grammar approach to the description of the language, materials are designed in the sense that facilitates schematization of relevant structures along with lexis-grammar continuum. Additional explanations were also provided considering participants proficiency levels. These explanations were also prepared with the idea of meaningfulness of grammatical forms and their relationships with lexical items.

In this study, preliminary results acknowledge the influence of differences in learners' level over the tense choices, nonpast time, and past time. Though statistical test of significance across proficiency levels are in favor of differences in the use of both time frame across three learner levels, Bayes factor results and effect size for loglikelihood results confirms that only difference in use past time is statistically significant. Additionally, regarding differences in aspect preferences, simple aspect has the central place for being influenced by differences in learners' proficiency levels. However, the direction of influence is not clear in the preliminary analysis, if the differences in the use of past time and simple aspect progress in a stage by stage fashion from A1-A2 toward C1-C2 or vice versa. These results express partial parallelism in other studies investigating proficiency levels and their effect on the use of TAs. Panagiotopoulos (2015) explored three learner corpora compared to two native speaker corpora and findings proposed the variation of tense across proficiency levels. However, it is not stated in the study the which tense causes variation on what level yet the author applied the further analysis of the combination of tense and aspect and it is indicated the

dominance of present tense with indefinite aspect over four learner corpora and expressed that tense itself is not a discriminator across proficiency levels. Supporting this, Housen (2002) voice that in the early stages of development, learners do not sound the difference between either aspect or tense but they most likely to be “the different forms of the verb behave like allomorphs” (2002, p, 160). Thus, during the first level, different verb forms with different TAs are either underextended or overextended, thus disregarding the effect of early levels influence on particular TA preferences. Further he (2002, p. 163) asserts that “morphemes are modified over time as initial form-meaning mappings” and many characteristic features of TAs develop later on the proficiency level scale.

Similarly, Isarankura (2011) investigated conceptualization of tense aspect structures across three proficiency levels, low, intermediate and high, in comparison to using of TAs in question by native speakers via questionnaire where participants are asked to choose the most relevant aspect with different time references. Results indicate the increasing similarity across native speakers and high proficiency learners; therefore, it is emphasized the importance of proficiency level over tense – aspect structures. However, it should be bear in mind that these studies analyze TAs from two different perspectives. On the previous studies, learners’ overall performances were tested out in written outputs; however on the later, focus is on the comprehension, or in the author’s words “conceptualizations”. Therefore, it is safe to propose two different hypotheses that while proficiency levels may be a discriminator over TAs in terms of comprehension yet not in terms of performance. In this study, though past time references and simple aspect are stated to be a discriminator over proficiency levels, it is not clearly expressed and investigated which level(s) is distinguished from which. First issue in investigating time references and aspectual features as distinct categories is that there are not many studies explicitly focusing on two concepts as distinguished. Additionally, Montrul and Salaberry (2003) and Salaberry and Ayoun (2005) inclusively highlight the importance of methodological factor and subject-related factors, where they state “the proficiency of any learner, probably closely associated to learning setting, measured beyond the relative performance on the use of verbal morphology (e.g., lexicon) may have an effect on, for instance, whether learners are more akin to rely on associations between verb types and specific endings” (Salaberry and Ayoun , 2005, p. 30). Therefore, considering CLC corpus, it requires test takers to answer the various question to assess learners’ proficiency levels. As a result, types of

text and their formats are also expected to be different as A1-A2 level learners may tend to give answers in informal format to a response question while C1-C2 level learners are expected to write an argumentative essay or a similar kind of academic text. These contextual differences as well as learner related factors can also contribute to the priming of different or similar time references and aspectual features.

On the other hand, regarding proximities between English TAs and learner levels give a detailed view for tense-aspect usages. While variations are to be observed on different levels regarding saliency levels between English TAs and levels, results do not indicate an emerging developmental path across proficiency levels. First of all, on similarity matrix data, the overall use of English TAs implies the similar patterning by both A1-A2 and B1-B2 level learners. However, as for the case of C1-C2 level learners, variation is due to attraction levels of Present Simple, Past Simple. Regarding the saliency between levels and TAs, the most attracted English TAs are Present Simple and Past Simple compared to other TAs. Cluster analysis for learner data states that all the learners with three different proficiency levels prime the use of Present Simple. When they are cross-compared, the highest saliency figure is for between Present Simple and C1-C2 level learners, which is followed by the saliency between A1-A2 level learners and finally between B1-B2 level learners and Present Simple.

On the hand, considering Past Simple, the highest saliency between B1-B2 level learners and Past Simple, next is between A1-A2 level learners and the least attraction in cross-comparison is between C1-C2 level learners and Past Simple. Furthermore, it was observed that figures for Past Progressive are similar for both A1-A2 and B1-B2 level learners, while it less attracted in C1-C2 level learners' data. On the contrary, the use of Present Progressive emerges as C1-C2 level learners include toward the use of Present Progressive and it the use of Present Perfect, which is distinctive for B1-B2 level learners. Results are conflicting and in disagreement with the other studies investigating the use of English TAs and proficiency levels. It is expected that the use particular tense – aspect structures are highly correlated to learners' proficiency levels and finding in many studies in favor of such result. For instances, Min (2013) conducted a study on which he examined 120 argumentative essays by native speakers, and two different proficiency level learners, intermediate and advanced level students. However, he also states that advanced level learners are more sensitive to contextual requirements, and they are able to utilize their grammatical knowledge regarding discourse, genre, or purpose of the essay.

Additionally, Patanasorn (2013) claim that an interlanguage path exists relevant to the learning of Past Simple and Present Perfect. In his study, participants were applied to a writing test where they are tested out regarding their performance of using Past Simple and Present Perfect in appropriate context. In the study, verbs were categorized as either appropriate for Past Simple or for Present Perfect. Learners who were able to use at least three verbs appropriate for Present Perfect were assumed to have mastered the use of Present Perfect. The overall result suggested in the study is that the emergence of Present Perfect use in appropriate context requires a stable master of the use of Simple Past. In his case, learners' levels vary from low proficiency to high proficiency, in his terms. Finally, Panagiotopoulos and Bergler (2014) investigated ICNALE corpus and scrutinized dataset from different proficiency levels. They examined tense and other two related concepts, aspect and voice. Corpus in their study consists of argumentative essays by Asian learners as well as native speakers of English. Their findings suggest that tense alone already is a good indicator for differences among proficiency levels and combination of tense – aspect is a better option to reveal these differences. However, they also highlight that the particularities of data greatly influence the outcomes.

Studies investigation the use of tense – aspect structures are quite limited as the majority of studies focus on the rate of correct or erroneous use rather than the ratio of overall use by different proficiency levels. In this study, differences regarding the priming of different English tense-aspect structures were investigated, and results are noticeable. First of all, C1-C2 level learners showed the tendency to use Present Simple and Past Simple more. Figures are similar to those of A1-A2 level learners. It is not an indication of C1-C2 level learners' being unable to utilize other structures, or it is not safe to claim that no difference was observed between A1-A2 level learners and C1-C2 level learners. However, it is obvious that proficiency alone does not weight differences among learners in terms of tense aspect use. From a different perspective, the use of tense – aspect structures cannot define learners' proficiency levels

In this regard, findings are also supported in other studies, of which Dagneaux (1998) analyzed development differences in tense – aspect errors between the French intermediate and advanced subcorpora and proposed that despite the difference between two levels, TAs are still problematic for advanced level learners as rate the progress is quite low. Similarly, Abe and Tono (2005), in their analysis of Japanese EFL learners, consisting of novice learners to advanced level learners, though variation exists

regarding tense uses and tense-related aspect, they insist results cannot signify the tense uses and tense errors as a discriminator of proficiency levels.

Additionally, Hinkel (2004) who emphasizes the difficulty of high proficient learners with conventionalized use of tense – aspect structures and highlights the inappropriateness of tense aspect use as a clue to the assessment of learners' proficiency. Additionally, Gabrielatos (2003, p. 2) argues that “the choice of tense in relation to time reference and grammatical aspect is largely subjective and context-sensitive, depending on the time- point the speaker/hearer is focusing on in association with the context”. Similarly, as mentioned earlier Montrul and Salaberry (2003) and Salaberry and Ayoun (2005), subject-related factors are also critical influencing learners' tense – aspect use. One exception to studies cited above is the analysis of Hawkins and Buttery (2010) who analysis Cambridge Learner Corpus and suggested these kinds of error are only useful when discriminating advanced level learners from very advanced ones. Along with the suggestions provided above, there is one another factor that data utilized in this study is a collection of exam performances and learners' levels are defined according to their overall performances in these exams. Therefore, it is highly possible that learners are extra careful as erroneous use of these structures will affect their overall exam scores; thus they may have used the structures relatively more as they feel more confident against making errors or mistakes. Additionally, there is also the possibility that exam question may have directed learners towards the use of certain TAs, as the question will define the discourse and context variable of the learners' answers. Different exams require answers with the various genre, style or format. Thus, results should be interpreted these factors bearing in mind. Indeed, this issue already addressed in the literature (Tracy-Ventura and Myles, 2015; Gablasova, Brezina and McEnery, 2017) and it is suggested that identical production task across all levels is required to minimize this factor.

Taking into account of usage-based characteristics of English tenses and tense-aspect structures, Biber (1999, p. 458) illustrates that “in some ways, present tense can be considered the unmarked form, occurring more frequently than past tense, and expressing a wide range of meanings.”. Wide range of application of Present Tense in English enables speakers of the language to express events in the past or present or events in the future. It is the verb form of “all-inclusive time reference” (Biber, 1999, p. 457). In the study, Present Simple is significantly common across three learner levels while inferential statistics state that Present tense is not a discrimination factor across

levels. Furthermore, saliency scores between learner levels also significantly accumulate as learner levels step up. Also, Biber (1999, p. 457) explores that conversation and academic prose are somehow similar in a strong preference for present tensed verbs. In conversations, present-tense verbs are utilized to the explication of speakers' immediate focus on context, while it is there in academic prose to express the idea of propositions are true in general. Although differences are observed due to proficiency levels, we can propose that regularities in use of Present tensed verbs from beginner levels to advanced levels can also be due to register and format expected from learners' essay in the exams and high variability of in the use of Present tense in English. This can also be the reason between likeness between C1-C2 level and A1-A2 level learners' preference for Present Simple.

Subsequent analysis conveys the exploration of semantic classes of verbs used in six English TAs. Across all levels, the semantic class with the highest token count is *Existences or relationship verbs*. Verbs in this semantic classification "report a state that exists between entities", more particularly they report "a particular state of existence" or "a particular relationship between entities" (Biber, 1999, p. 364). Following this, regarding A1-A2 level learners, *Activity Verbs*, and as for the other levels, *Mental Verbs* are high token counts compared to five remaining semantic classes. *Activity Verbs* "primarily denote actions and events that could be associated with choice" (Biber, 1999, p. 361) and they "can be used to express non-volitional actions, events or static relations, in addition to volitional activities" (p.362). Investigation of grammatical patterning of all semantic classes over six English TAs across three learner levels, *Activity Verbs*, and *Existences or relationship verbs* poses correspondences, while patterning of *Mental Verbs* is clearly distinguished from the rest of the semantic classes. These results however, quite expected regarding the nature of the exam and differences in learner levels. First of all, *Activity Verbs* occur in higher frequencies than the rest of the classes in four genres, "Academic, Fiction, Conversation and News" examined by the Biber (1999). However, it is also stated that in academic prose, there is a strong preference for *Existences or relationship verbs* as much as *Activity Verbs*. Therefore, similar patterning of these two classes are due to contextual requirements as much as due to learner levels. According to CEFR guidelines, majority of verbs covered in the first level of English language teaching consists of *Activity Verbs*. Additionally, Cambridge Exams, except for academic purposes, requires participants to provide prompt answers to fiction or conversation-like styles. It is highly possible that the

combination of instructed learning, contextual effects, and proficiency levels lead priming of *Activity Verbs*. Also, due to the overlapping of both *Existence or relationship verbs* and *Activity Verbs* in terms of frequent use in academic prose is another factor for alikeness. One final contribution to overall results is the using the copula verb “be” more in A1-A2 level learners thus result in a higher token count in *Existences or relationship verbs*. Next is the *Mental Verbs*, which is clearly distinguished in cluster analysis and higher frequencies in both B1-B2 and C1-C2 level learners’ data than A1-A2 level learners’ data. *Mental Verbs* “describe cognitive activities that are relatively dynamic in meaning” or being more stative in meaning they “describe cognitive states and emotions” (Biber, 1999, p. 363) Biber (1999) observes that *Mental Verbs* are relatively used less in academic prose, but there is a strong preference in conversation and fiction. Interestingly, *Mental Verbs*, despite being shared across all levels, are much common in B1-B2 and C1-C2 level learners’ data, where their performances are expected to resemble a more academic prose-likeness.

There is limited data for analysis of semantic classes of verbs in learner corpora studies and even limited regarding their preferences according to learner proficiency levels. Many studies conveying research on second language tense-aspect acquisition or usage investigates verbs and classify them according to their internal dynamics of inherited lexical aspectual features. In this study, however, with a more focus on usage-based profiles, Biber’s (1999) classification of verbs were applied. A summary of the discussion of lexical aspect and reason for the preference for Biber’s classification was already given in the literature review. However, in the study by Smith (2004), use of the verbs and their semantic categorization based on Biber’s (1999) classification were investigated in a comparison of second language learners’ academic writings to first language speakers students’ academic writings and also to archives of professional writing by native speakers (both British and American) in both academic and fiction prose. In this study, while *Existences or relationship verbs* and *Mental Verbs* are the two semantic classes with the highest tokens in C1-C2 learners’ data, Smith (2004) illuminates that in learner data, *Mental Verbs* occur far less than the other groups and while *Communication Verbs* are used more in learner data than British experts’ data and they are used less in American students with English first language and less in American expert writings. Finally, while *Occurrence verbs* are more common in learner data than the other groups, *Causative verbs* are used almost with similar figures in both learner data and British experts’ data. Learner data of Smith (2004) consists of German

EFL learners who are exposed to the practice of English academic writing no less than 3 years and no more than 5 years with maximum 6 months of experience living in an English-speaking country. Therefore, learners' levels are expected to vary between high intermediate to advanced. Additionally, they are expected to enroll in an English department TESL or TEFL program. Comparison of both studies highlights the importance of contributing factors to verb choice preferences. The initial factor is differences between first languages. The primacy of certain verbs in academic prose in learners' first language, differences in contextual requirements, exposure to type and duration of instructed learning as well as familiarity with the academic prose are among the factor yielding differences.

Exploration of tense – aspect preferences with certain semantic classes of verbs also provide exciting results. In the A1-A2 level learner data, the grammatical patterning of *Activity Verbs* indicates the high attraction for Present and Past Progressive as well as Past Perfect and Past Simple. Nevertheless, *Existences or relationship verbs* have the highest saliency level with Present Simple, which is followed by Present Perfect and Past Simple in descending levels. Figures for B1-B2 levels are almost similar to that of A1-A2 level learners, as the highest attraction is between *Activity Verbs* and Past Progressive, later with Present Progressive. As for the *Existences or relationship verbs* in B1-B2 level learners, Past Simple has the uppermost attraction with Present Simple and later with Past Simple. Finally, the case for C1-C2 level learners is that maximum saliency is between *Activity Verbs* and Past Progressive, next with Present Progressive. Also, *Existences or relationship verbs* forms the attraction with Past Simple and Present Simple in this level.

According to Biber (1999, p.459) “present tense is strongly associated with verbs denoting mental and logical states, while past tense is strongly associated with verbs denoting events or activities.” Additionally, regarding aspects Biber (1999) distinguishes combination of perfect aspect with present and past time as their uses fundamentally vary regarding register. Lexical associations of Present Perfect, which is frequently used in academic prose, consists of verbs denoting physical or communicative activities, they are rarely used with the verbs of mental and existence domain. On the other hand, although semantic relations of Past Perfect with the verbs are almost identical to that of Present Perfect, there is a strong preference for Past Perfect in fiction. Finally, regarding progressive aspect, common verbs used with progressive aspect are from several different semantic class. However, the majority of

verbs are from the domain of *Activity Verbs*, “occurring over 80% of the time with progressive” (Biber, 1999, p. 471). One note of caution Biber (1999) explains that although progressive aspect is generally associated with the dynamic verbs, verbs with stative senses are highlighted as not to occur with progressive. However, in his analysis, both dynamic and stative verbs are included in the list of the most common verbs across four genres. In this study, it is clearly observable that learners are sensitive to aspect preferences with their verb choices. In each case, *Activity Verbs* are attracted to Present or Past Progressive more. Similarly, both *Mental Verbs* and *Existences or relationship verbs* have strong associations with Simple and Perfect aspect in Present and Past timed structures across all levels.

The second part of the study on the mapping of tense – aspect structures explores the error-prone tensed verbs and their aspects by Turkish EFL learners with three proficiency levels. To start with, inferential statistics on Table 4 indicates that regarding erroneous uses of tensed verbs, figures for nonpast tensed verbs are in favor of Null Hypothesis that no evidence was observed, levels of significance is not due to differences in learners’ proficiency levels but may be due to chance or any external factor. However, it is more evident that errors in past timed verbs are under the strong influence of differences in learners’ levels. Regarding aspect related errors, figures for all three aspects, namely simple, progressive and perfect, are statistically significant, only difference in erroneous uses of simple aspect is due to differences in learner’ proficiency levels. In contrast, figures for the other two aspects state solid evidence in favor of proficiency levels’ not being discriminatory for errors in aspect uses. Following these investigations, a combination of erroneous tense – aspect structures were clustered across three levels. However, in this stage, copula verb “be” was disregarded from the analysis due to high numbers of nested figures, particularly in A1-A2 level learners’ data. Being an outlier in the data which may affect the skewness of statistical results, and homogenous distribution of semantic classes taking out the copula “be”, only lexical verbs and structured TAs were applied to hierarchal cluster analysis. Results demonstrate that errors relevant to Present Simple have higher saliency levels with A1-A2 learners compared to others. This figure was followed by the attraction level between Present Simple and B1-B2 level learners and finally between C1-C2 level learners. Quite the opposite, the rate of attraction between lexical verbs structured with Past Simple and C1-C2 level learners is the uttermost, next is the saliency between B1-B2 level learners and Past Simple finally, between A1-A2 level learners. Combination

of progressive aspect with time references, erroneous use of Present Progressive is highly correlated with the B1-B2 level learners, and both erroneous uses of Past Perfect and Past Progressive were correlated with C1-C2 level learners. Finally, A1-A2 level learners have the highest and C1-C2 level learners have the least saliency scores for erroneous use of Present Perfect.

Due to the low number of overall token counts of erroneous uses, cluster analysis was not possible to be applied. Also, figures for the two most attracted tense – aspect combination across three subcorpora were significantly higher on similarity matrix data. Therefore, only distributions of semantic classes over Present and Past Simple were provided. According to the data on figure 12, verbs structured with erroneous use of Present Simple is relatively high with *Occurrence Verbs* in A1-A2 level learners' data, while it is the semantic class of *Activity Verbs* in B1-B2 level learners' subcorpus. As for the C1-C2 level learners, all figures were almost flattened, indicating no significant differences in the distribution of normalized frequency data. However, it is quite the opposite for the erroneous use Past Simple, as interestingly it reaches the peak with *Activity Verbs* in C1-C2 level learners' data, following this in B1-B2 level learners' subcorpus figures for erroneous use of both *Activity Verbs* and *Mental Verbs* are approximated to each other. Finally, the semantic class with the highest token of erroneous use of Past Simple in A1-A2 level learners' data is *Mental Verbs*.

Teaching and learning of English as a second language fundamentally covers the teaching and learning of English TAs over all levels. Therefore tense – aspect errors are among the most attracted topic in second language acquisition and foreign language teaching. To start with, (Şahin, 1993) investigates the tense-aspect errors in writings of Turkish EFL learners regarding both syntactic and semantic/pragmatic errors. According to findings in his study, semantic/pragmatic errors are relatively higher than syntactic errors while 61.39% of errors are semantic/pragmatic, 38.60% is syntactic. He further states that Present Simple is the most frequent structure that was used inappropriately, next is Present Progressive and finally Present Perfect. Although he does not clearly state the proficiency level of participants in his study, when compared with the current research, overlapping of Present Simple being the one of the most error-prone structure is clearly observable. In another study by Mohd. Noor (1985), it was found out that both Present Simple and Past Simple are the two structures that are most frequently used, and they are also the most error-prone TAs in writings of Malay EFL learners. it is concluded in the study that, due to a higher frequency of use, the

overall token of erroneous uses is also high. Additionally, Hidayah bin Abdullah (2013) explored tense aspect errors in learner data; however he did not acknowledge the first language background of his participants. His overall findings also claim that Present Simple and Past Simple are the two most error-prone English TAs.

Furthermore, Dürich (2005) conducted a study regarding English tense-aspect uses and errors over five different proficiency levels. She acknowledges that progressive aspect is the most problematic for learners with German first language background. Additionally, although the ratio of error rates differs across groups, the two most common error-prone tense-aspect combinations are Present Simple and Past Simple. Likewise Liu's (2012, p.15) study on Chinese EFL learners' writings, "misuse of simple present tense far outnumbers other tenses, followed by misuse of simple past tense" Finally, Granger (1999) demonstrates in her study of tense – aspect errors by advanced-level French EFL learners, the two most error-prone TAs are also Present Simple and Past Simple.

Following analysis of erroneous use of English tense-aspect structures in learner data, correction for these uses were also provided. Interestingly enough, in A1-A2 level learners' data, the highest figures are initially for Past Simple for Present Simple, and secondly Present Simple for Past Simple. Similarly, as it was observed in the study, error pairs for B1-B2 level learners, Past Simple for Present Simple is the most frequent one. Following this, secondly Past Simple for Past Perfect and thirdly Past Perfect for Past Simple, next is Present Perfect for Past Simple and finally Past Simple for Present Perfect. Regarding error pairs, emerging of acquisition of Perfect aspect is observable. Though the most frequent error pair is, like it is in A1-A2 level learners' data, Past Simple for Present Simple, the rate of interchangeability of Past Simple and Present/Past Perfect structures is more intriguing. Finally, across the data of C1-C2 level learners, the highest pair is Past Simple for Present Simple, which is followed by Past Simple for Present Perfect. Next pair is Present Simple for Past Simple, and Present Perfect for Past Simple with same counts, Past Perfect for Past Simple.

To start with, Şahin (1993) recognizes that in his corpus of Turkish EFL learners, the most common error-prone pair is Present Simple for Past Simple, which is followed by Present Progressive for Present Simple and finally, Present Perfect for Past Simple. Additionally, Zıngır (1999) observes the overwhelming use of Past Simple by intermediate level learners in their narratives, and she also notes the most common error-prone pair as Past Simple and Past Perfect (Pluperfect in her terms) regarding the

data for the use of Past Simple by her participants. Likewise, she states the common error in the use of Past Progressive, for which, in her study, learners were expected to use Past Simple in majority of the cases. A final note worth mentioning, Zıngır (1999) emphasizes the problematic nature of the progressive aspect, however this difficulty is defined in terms of Vendler's four way semantic classification of verbs. In both studies mentioned above, though genre and style were defined, informal written sources, essays for the first one and it is narrative on the latter, other related factors apart from first language influence are disregarded. Additionally, contextual factors were not mentioned which might have created a point of bias for learners influencing their performances. Yet, Şahin acknowledges the importance of pragmatic and semantic factors to be taking into account during formal instruction of tense – aspect structures.

Next, in her study, Granger (1999) acknowledges that both intermediate and advanced level students with French first language have prominently experienced problems with Present Simple – Past Simple pairs. Lastly, Hulvová (2015) recognizes in the analysis of Czech EFL learners' writings, and it was observed that the most error-prone pair are the use of Present Progressive for Present Simple, next is Present Simple for Past Simple followed by Past Simple for Present Simple. So far, findings regarding error-prone pair are in parallel with the results of the most common pair-wise structures in the current study. On the other hand, Götz (2015) explored German EFL learners' tense – aspect use in spoken corpus whose proficiency levels vary from B2-C2 levels, and she states that due to possibility of negative L1 transfer as German language has no equivalents for these structures, the most common error-prone pairs are Present Progressive for Present Simple, Present Perfect for Past Simple and Present Simple for Future Tense.

All these studies cited so far explicate similar findings with the current research as in all these studies, Present Simple and Past Simple are the two tenses which are evoked as the most error-prone. Findings contradict results of the study by Hinkel (1992) who also claims that present simple is the easiest TA to be acquired by non-native speakers. However, Hinkel's definition of simplicity is not clear; his indication of Present Simple can be argued from another perspective. Biber (1999) states that across four genres he investigated, there is an overwhelming use of Present Tense as stated previously, He defines Present Simple tense as "all-inclusive". Therefore, regarding the frequency of effect, in both during instructed and uninstructed learning process, learners' high exposure rate to correct and authentic use of Present Simple is expected

to minimize the erroneous use of Present Simple and promote correct use with verbs strongly preferred with it. However, all the studies cited above investigated the use of tense – aspect structures in terms of expressing appropriate intended meaning rather than surface errors and in many cases the most error-prone pair are Present Simple – Past Simple. Supporting this Granger (1999) expresses that prominence of Present Simple – Past Simple error pair may be the artefact of frequent use these two TA structures with the frequently used verbs in both learner and native speaker data. It is to be proposed that frequent use of the Present Simple and Past Simple is reflected upon the learner data. Additionally, all these studies explore learner data from various first language backgrounds, overall which indicate that the interlanguage regularities across learners with various proficiency levels are vulnerable to frequency affects more than first language inferences. In short, as Boroditsky emphasizes (2001, p. 12) “it appears that language-encouraged habits in thought can operate regardless of the language that one is currently thinking for”.

On the other hand, if corrections are assumed to be intended meanings learners are willing to express, the direction of the interpretation of analysis will substantially change. Discussion of corrections, target forms or intended meanings and criticisms of such an approach are still a fresh one sounded in studies. Terming Ellis’s (2009) “correct” version as *Target Hypothesis*, Reznicek, Lüdeling, and Hirschmann (2013) acknowledge the need for a transparent structure to handle expected or assumed correct forms. They compare different target hypothesis and suggest a multi-layered approach based on different target hypothesis. Similarly, Ott, Ziai, and Meurers (2012) compare results from different annotators to emphasize the difficulty of providing reliable data in corrections. This is important as there is no agreement on the fixed or flexible schema on annotation tasks, therefore it is possible that annotation of any corpora by different annotators may yield different corrected forms. Hence, the comparability of different studies is in question. Finally, Lüdeling (as cited in Lüdeling, Sauer, Belz, Mooshammer, 2015, p. 3) “A target hypothesis does not constitute the ‘truth’ or the ‘only correct way of saying something’ but is an interpretation of the utterance for the purpose of a given research goal”.

An extra interpretation of such studies which is often ignored in the literature is that error analysis in learner corpora studies fails to provide any comprehensive insight to possible sources to learner errors. As there are many variables which might influence the error annotation schema and possible results, it is hard to base any sound claim over

error sources which indeed is sourced out from difficulty for defining what an error is. As for the case for corrected forms, which also provide a base for tagging of errors, annotator effects, contextual requirements, subject related factors are all intact. Although interlanguage patterning is usually observable and demonstrates similarities, to the most extent, across various studies on learners with different first language backgrounds and studies with different types of learner data, a more controlled approach to data collection and a more stable and agreed upon target hypothesis is required to comment on the possible sources of errors.

Last part the study consists of the remedial teaching for A1-A2 level Turkish EFL learners. Regarding the related literature and previous studies, cognitive grammar inspired teaching and conventional teaching methods were applied. In this case, the term conventional (traditional) expresses the application of common grammatical teaching, be it deductive or inductive, included in the common grammar and main course of EFL teaching. Nonetheless, Cognitive Grammar inspired teaching utilizes more visually supported description of grammatical constructions. Furthermore, focus in the latter is the meaningfulness of grammatical forms and their relations with lexical items. In this approach, schematic operations, underlying grammatical forms are explained in accordance with semantic and pragmatic application in actual language use. As a result of remedial teaching for Present Simple, Present Progressive, Past Simple and Present Perfect, while overall performance increase was observed in exam score of intervention group in terms of use of Present Simple and Present Progressive, figures almost remained same in pretest and posttest for Past Simple and Present Perfect, furthermore, they were slightly higher for the control group.

Pedagogical applications of Cognitive Grammar inspired teaching are relatively new to the field of second/foreign language teaching. Furthermore, studies with CG inspired in focus propose conflicting results. To start with, Reif (2012) provided a comprehensive description of CG based instruction and conducted her study on learners with German first language background. In her experimental study, learners' levels are roughly corresponding to B1-B2 level according to CEFR guidelines. In the study, the treatment group received selected CG based materials and grammatical descriptions, more particularly ones based on Mental Space Theory. She explicates that the overall performance of the treatment group is not significantly higher compared to the control group except one task where students are tested out toward peripheral uses of English tense-aspect. In another study, Bielak and Pawlak (2013) applied the CG inspired

teaching in a high school setting, where learners are instructed with CG based materials to the acquisition of Present Simple and Present Progressive. In their study, a delayed posttest was utilized to measure long term effects of such teaching. Similar to Reif (2012) overall results did not indicate any significant difference between groups as it was observed an overall performance gain for both groups. Of course, it is expected that both groups would achieve progress in the time span of instruction. However, it is stated that CG based treatments are no superior to traditional treatments. As authors express, it is due to the possibility of utilized CG based materials are beyond the cognitive abilities of learners in study. Finally, in contrast to previous studies, Kermer (2016) stated the learners received cognitive treatments gained in terms of comprehension of target structures and putting them use. In her study, she applied pretest and posttest with subparts; each part is mainly focusing on particular skill be it comprehension of target forms or using them in appropriate context. She points out that learners in her study's treatment group significantly outperformed the control group in many tasks, specifically regarding Present Simple and Present Progressive.

Similar to these researches, in the current study while overall performance gain over control groups was observed in the test measuring comprehension and performing Present Simple and Present Progressive, almost no difference was observed in favor of Past Simple and Present Perfect; moreover, control group slightly outperformed treatment group. There may be various reasons attributed to failure of CG treatment in teaching of Past Simple and Present Perfect, however; among these, one stands out in this study and that is verb choices in teaching of different tenses. Regarding treatment, verbs to be taught particularly signify the need of utilizing Present Simple in the first treatment, yet as for the other, it is not possible to define verbs specifically requires Present Perfect. Rather semanticity of verbs, communicative intentions lead students to particular TA preferences.

Pedagogical applications of Cognitive Grammar are still in its infancy to claim as a superior approach to traditional methods and need further support to declare so (Geeraerts, 2006). Indeed, rather proposing any specific proposal in favor of Cognitive Grammar-based approach, Langacker (2006) acknowledges that a fresh outlook to both traditional and modern understanding of grammar therefore its pedagogical reflections is need, as "They (both traditional and modern approaches) ignore construal and the sub-jective basis of factors like homogeneity and bounding" and "have no conception of the myriad viewing arrangements that mediate between objective circumstances and the

formulation of linguistic expressions” (p.27). Therefore, Cognitive Grammar is there to “provide new and revealing perspectives on specific problems as well our overall conception of language and how it relates to culture, cognitive and social interaction” (Langacker ,2006, p. 27)

Concluding overall research, implementation of error analysis with its drawbacks and conveniences to the classroom to map learner specific obstacles and remedial treatments for such obstacles aided with Cognitive Grammar inspired teaching have promising outcomes. Combination of both approaches, data collection to reveal learner specific problems with empirical tools and treating them with empirically-based remedies will yield fruitful results in second/foreign language teaching and learning. However, further researches, application, updated, and empirically tested materials are needed to enhance the whole approach.

5.2. The Implication of the Study

Throughout the study, it was aimed to implement practical use of computer-aided error analysis to both exploratory interlanguage analysis and in-class use for second/foreign language teaching environment. Error analysis is a powerful tool for teachers and researchers alike to observe learners’ development during the language learning process. It is possible to gain in-depth insights regarding learners’ difficulties on a specific subject be it grammatical development, lexical knowledge, or even pragmatic use of language. In further analysis, the same set of analysis can also be applied to individual learners to evaluate individual progress or within-group comparisons. Therefore, it is also a way to base teachers’ observation of their students to an empirical base.

In this study, it was aided to investigate into Turkish EFL learner’s tense – aspect structures and discrepancies considering differences in proficiency levels. It was observed that, in accordance with the other studies, Turkish EFL learners have difficulty in mastering particular English tense-aspect structures and these difficulties persist even with Advanced level learners. Additionally, in many cases, non-authentic uses of tense – aspect structures with inappropriate verb choices were observed. Therefore, keeping in mind, teachers are advised to take into consideration contextual and learners related factors in teaching of English tense-aspect structures. Likewise, Langacker (2008a, p. 72) suggest that “in a departure from the general underlying concept of current

relevance, learners can be familiarized with other uses of this construction and, in turn, be taught how each usage type for the construction “almost always has conceptual motivation”.

Regarding the conceptual motivation mentioned above, usage-based profiling of the grammatical structures are of the pivotal importances as emphasized so far in the study. In many cases, a common disposition towards influence of the first language was accentuated in various studies. However, analysis of actual use of grammatical patterning by second language learners requires a multimodal perspective. In this case, it is highly possible that requirements imposed by the exams question which also impose a certain genre and expected style would influence learners. Additionally, as expected by the learners, due to worry to get higher scores in the exam, they are to incline towards to use of the structures they are the most certain. Thus, overall factors unavoidably would affect the statistical nature of the second language acquisition research. Possible avoidance strategies or others which might have been applied by the learners would also lead researchers to conclude misguided conclusions. It is critical to define and state possible factors which might bias the outcomes of the studies.

Additionally, remedial teaching section tests a new paradigm for the description of grammatical rules and their relations with lexical items. Teachers are in need of alternative approaches regarding their learners' needs are suggested to initialize this new paradigm of grammatical descriptions along with means and materials., particularly regarding peripheral uses of certain grammatical forms.

5.3. Limitation of the Study and Suggestion for Further Studies

Analysis in this study is limited with the three subcorpora created following the purpose of the research questions. Therefore, data is limited and unevenly distributed for some cases. Additionally, whole data consists of responses to question in Cambridge Publishing exams. Due to learners' aim of getting the highest grades possible, the degree of freedom in the data is open to question. As it was stated in the discussion, it is possible that learners' potential avoidance strategies will also affect their outputs, as they may tend to rely on the forms and rules, they feel most confident. Even for the learners who reached C1-C2 level based on the exam scores, interlanguage regularities observed in A1-A2 level learners' data endures. Therefore, a more controlled data collection schema and strategy are advised where students are not measured due to their

performances. Additionally, due to a limited number of participants with particular proficiency level and also due to limited allocated time, only four basic tense – aspect structures with limited means and materials, which are thought to be adequate to learners' level, were included in the treatment. A similar set of instructions are needed to be applied to learners with higher proficiency to claim the superiority or inferiority of the Cognitive Grammar inspired teaching. Additionally, new types of materials are also suggested to be developed regarding learner specific needs and learning strategies.



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APPENDICES

Appendix 1: Biber's (2006, p. 246, 247) List of Verbs across Seven Semantic Classes

1. Activity: 'primarily denote actions and events that could be associated with choice, and so take a subject with the semantic role of an agent' (LGSWE, pp. 361–362, 367–368, 370):

buy, make, get, go, give, take, come, use, leave, show, try, work, move, follow, put, pay, bring, meet, play, run, hold, turn, send, sit, wait, walk, carry, lose, eat, watch, reach, add, produce, provide, pick, wear, open, win, catch, pass, shake, smile, stare, sell, spend, apply, form, obtain, arrange, beat, check, cover, divide, earn, extend, fix, hang, join, lie, obtain, pull, repeat, receive, save, share, smile, throw, visit, accompany, acquire, advance, behave, borrow, burn, clean, climb, combine, control, defend, deliver, dig, encounter, engage, exercise, expand, explore, reduce Phrasal activity verbs (LGSWE, pp. 409–410): *come along, come on, come over, get out, get up, go ahead, go off, sit down, shut up, sit up, stand up, carry out, get back, get in, get off, look up, make up, pick up, put on, set up, take off, take on, take over, take up*

2. Mental verbs: 'denote a wide range of activities and states experienced by humans; they do not involve physical action and do not necessarily entail volition. Their subject often has a semantic role of a recipient' (LGSWE, pp. 362–363, 368–369, 370). Mental verbs include cognitive meanings (e.g., think, know), emotional meanings expressing various attitudes and desires (e.g., love, want), perception (e.g., see, taste), and receipt of communication (e.g., read, hear):

see, know, think, find, want, mean, need, feel, like, hear, remember, believe, read, consider, suppose, listen, love, wonder, understand, expect, hope, assume, determine, agree, bear, care, choose, compare, decide, discover, doubt, enjoy, examine, face, forget, hate, identify, imagine, intend, learn, mind, miss, notice, plan, prefer, prove, realize, recall, recognize, regard, suffer, wish, worry, accept, afford, appreciate, approve, assess, blame, bother, calculate, conclude, celebrate, confirm, count, dare, deserve, detect, dismiss, distinguish, experience, fear, forgive, guess, ignore, impress, interpret, judge, justify, observe, perceive, predict, pretend, reckon, remind, satisfy, solve, study, suspect, trust

3. Communication verbs: ‘a special subcategory of activity verbs that involve communication activities (speaking, writing)’ (LGSWE, pp. 362, 368, 370):

say, tell, call, ask, write, talk, speak, thank, describe, claim, offer, admit, announce, answer, argue, deny, discuss, encourage, explain, express, insist, mention, offer, propose, quote, reply, shout, sign, sing, state, teach, warn, accuse, acknowledge, address, advise, appeal, assure, challenge, complain, consult, convince, declare, demand, emphasize, excuse, inform, invite, persuade, phone, pray, promise, question, recommend, remark, respond, specify, swear, threaten, urge, welcome, whisper, suggest

4. Existence or relationship verbs: These verbs ‘report a state that exists between entities. Some of the most common verbs of existence or relationship are copular verbs’ (e.g., *be, seem, appear*). Other verbs in this category ‘report a particular state of existence (e.g., *exist, live, stay*) or a particular relationship between entities (e.g., *contain, include, involve, represent*)’ (LGSWE, pp. 364, 369, 370–371):

seem, look, stand, stay, live, appear, include, involve, contain, exist, indicate, concern, constitute, define, derive, illustrate, imply, lack, owe,

5. Occurrence verbs: ‘report events (typically physical events) that occur apart from any volitional activity. Often their subject has the semantic affected role’ (LGSWE, pp. 364, 369, 370): *become, happen, change, die, grow, develop, arise, emerge, fall, increase, last, rise, disappear, flow, shine, sink, slip, occur*

6. Facilitation or causation verbs: ‘indicate that some person or inanimate entity brings about a new state of affairs. These verbs often occur together with a nominalized direct object or complement clause following the verb phrase, which reports the action that was facilitated’

(LGSWE, pp. 363, 369, 370): *help, let, allow, affect, cause, enable, ensure, force, prevent, assist, guarantee, influence, permit, require*

7. Aspectual verbs: ‘characterize the stage of progress of some other event or activity, typically reported in a complement clause following the verb phrase’ (LGSWE, pp. 364, 369, 371): *start, keep, stop, begin, complete, end, finish, cease, continue*

Appendix 2: List of All the Verbs Extracted from three Subcorpora

All the Verbs in TRA12WrTV Subcorpus

Nonpast Simple	<i>be, have, like, want, know, think, love, need, hope, cost, wish, take, start, skirt, see, look, believe, please, go, call, write, swim, kiss, do, come, buy, sell, ride, play, last, give, ask, wonder, whet, wear, visit, travel, suppose, suggest, stuff, sleep, sit, sing, prefer, practice, pay, miss</i>
Nonpast Progressive	<i>go, come, travel, start, spend, sit, sell, play, listen, have, grow, get</i>
Nonpast Perfect	<i>be, see, have, work, start, move, like, have, give, break</i>
Past Simple	<i>buy, be, go, cost, give, have, cost, get, like, want, pay, see, need, love, enjoy, watch, take, receive, lose, do, decide, come, write, tell, spend, speak, shop, say, rip, put, move, miss, meet, make, leave, invite, forget, find, feel, exit, drink, call, ask</i>
Past Progressive	<i>shop, exit, play, give</i>
Past Perfect	<i>spend, get, decide</i>

All the Verbs in TRB12WrTV Subcorpus

Nonpast Simple

be, think, want, know, do, hope, have, need, like, look, come, go, say, include, wish, read, feel, get, make, believe, love, prefer, work, agree, please, offer, use, mean, see, give, enjoy, wonder, take, show, start, find, seem, live, cost, watch, regard, choose, wear, understand, provide, write, miss

Nonpast Progressive

Write, look, go, wait, get, be, study, ask, use, think, play, plan, live, talk, have, wonder, wear, make, call, work, teach, take, stay, sit, send, offer, grow, give, do, come, change, bore, become, watch, try, get, start, stand, smile, sleep, sing, show

Nonpast Perfect

Be, have, write, see, change, start, read, phone, receive, make, begin, win, be, hear, go, become, take, give, do, break, mention, listen, gain, finish, find, enjoy, develop, decide, arrange, want, advertise, work, wait, qualify, use, tell, send, sell, request, visit

Past Simple

Be, have, say, go, see, start, get, come, tell, think, want, decide, ask, take, find, do, buy, know, write, make, choose, enjoy, play, call, look, use, film, feel, like, receive, hear, give, seem, begin, meet, try, open, include, leave, send, attend, visit, stay, help, arrive, walk, understand

Past Progressive

Go, look, think, come, try, play, wonder,

*watch, wait, stand, shine, shake, scream,
say, make, cry, be, walk, talk, study, read,
have, expect, work, wear, turn, stay, star,
sit, shout, record, live, listen, lie, include,
get, feel, enjoy, drive, do, write, visit, use,
tremble, travel, tick, tell, wait, deal*

Past Perfect

*Be, have, write, see, change, see, start,
read, phone, receive, make, begin, win,
be, hear, go, become, take, give, do,
break, mention, listen, gain, finish, find,
enjoy, develop, decide, arrange, want,
advertise, work, wait, qualify, use, tell,
send, sell, request, visit*

All the Verbs in TRC12WrTV Subcorpus

Nonpast Simple

*Be, have, think, want, do, know, believe,
need, make, hope, feel, get, look, seem,
come, like, go, say, live, take, see, mean,
offer, give, show, find, wear, prefer,
become, work, try, start, use, suggest,
deserve, agree, enjoy, consider, wonder,
provide, wish, spend*

Nonpast Progressive

*Write, look, go, work, be, do, live, try,
study, get, come, talk, take, have, grow,
feel, expect, visit, plan, wear, struggle,
do, open, offer, leave, improve, enclose,
drive, change, bore, attend, wander,
walk, wait, wonder, use, threat, think,
support, suggest, increase*

Nonpast Perfect

Be, have, change, see, do, become, work,

*receive, go, make, come, read, decide,
win, start, prepare, mention, lose,
increase, happen, give, finish, find, write,
think, take, spend, show, play, organize,
notice, limit, like, learn, lead, receive,
hear, experience, meet, enclose*

Past Simple

*Be, have, say, start, go, make, think, take,
get, do, want, come, know, find, see, feel,
look, use, decide, give, enjoy, ask, tell,
leave, call, work, spend, try, raise, learn,
turn, show, mention, appear, become,
seem, begin, promise, love, like, receive,
open, meet, keep, help, cause, teach*

Past Progressive

*Go, sit, try, live, work, get, walk, talk,
sing, have, expect, do, wear, wait, star,
pass, happen, wonder, swim, ring, play,
miss, look, hope, deal, come, clap, check,
burn, behave, approach, act, watch, visit,
use, tremble, try, teach, take, listen,
count, steal, stay, stand*

Past Perfect

*Be, have, want, see, expect, make, come,
tell, find, start, say, promise, plan, lose,
leave, hope, happen, get, finish, work,
think, talk, take, study, strike, stop, steal,
spend, serve, separate, replace, try,
plane, phone, pass, manage, observe,
notice, cross, complain, meet*

Appendix 3: Distributions of Semantic Classes of Verbs Used in Six English Tense – Aspect Structures across three Learner Levels

TRA12WrTV Corpus								
Semantic Classes		Tense Aspect Structures						Total
		PRE_PRG	PRE_PRF	PRE_SIM	PST_SIM	PST_PRG	PST_PRF	
ACT	Observed	28	4	47	316	4	2	401
	Expected	9.285	4.6425	221.97	163.07	1.1606	0.8705	
	% within row	7.0 %	1.0 %	11.7 %	78.8 %	1.0 %	0.5 %	
	% within column	87.5 %	25.0 %	6.1 %	56.2 %	100.0 %	66.7 %	
	% of total	2.0 %	0.3 %	3.4 %	22.9 %	0.3 %	0.1 %	
MNT	Observed	1	3	213	40	0	1	258
	Expected	5.974	2.9870	142.81	104.92	0.7467	0.5601	
	% within row	0.4 %	1.2 %	82.6 %	15.5 %	0.0 %	0.4 %	
	% within column	3.1 %	18.8 %	27.8 %	7.1 %	0.0 %	33.3 %	
	% of total	0.1 %	0.2 %	15.4 %	2.9 %	0.0 %	0.1 %	
CMM	Observed	0	0	15	7	0	0	22
	Expected	0.509	0.2547	12.18	8.95	0.0637	0.0478	

TRA12WrTV Corpus

Semantic Classes		Tense Aspect Structures						Total
		PRE_PRG	PRE_PRF	PRE_SIM	PST_SIM	PST_PRG	PST_PRF	
EXT	% within row	0.0 %	0.0 %	68.2 %	31.8 %	0.0 %	0.0 %	
	% within column	0.0 %	0.0 %	2.0 %	1.2 %	0.0 %	0.0 %	
	% of total	0.0 %	0.0 %	1.1 %	0.5 %	0.0 %	0.0 %	
	Observed	1	8	470	123	0	0	602
	Expected	13.939	6.9696	333.23	244.81	1.7424	1.3068	
	% within row	0.2 %	1.3 %	78.1 %	20.4 %	0.0 %	0.0 %	
	% within column	3.1 %	50.0 %	61.4 %	21.9 %	0.0 %	0.0 %	
	% of total	0.1 %	0.6 %	34.0 %	8.9 %	0.0 %	0.0 %	
	Observed	1	0	15	76	0	0	92
	Expected	2.130	1.0651	50.93	37.41	0.2663	0.1997	
OCC	% within row	1.1 %	0.0 %	16.3 %	82.6 %	0.0 %	0.0 %	
	% within column	3.1 %	0.0 %	2.0 %	13.5 %	0.0 %	0.0 %	
	% of total	0.1 %	0.0 %	1.1 %	5.5 %	0.0 %	0.0 %	

TRA12WrTV Corpus

Semantic Classes		Tense Aspect Structures						Total
		PRE_PRG	PRE_PRF	PRE_SIM	PST_SIM	PST_PRG	PST_PRF	
FAC	Observed	0	0	0	0	0	0	0
	Expected	0.000	0.0000	0.00	0.00	0.0000	0.0000	
	% within row	NaN	NaN	NaN	NaN	NaN	NaN	
	% within column	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	
	% of total	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	
ASP	Observed	1	1	5	0	0	0	7
	Expected	0.162	0.0810	3.87	2.85	0.0203	0.0152	
	% within row	14.3 %	14.3 %	71.4 %	0.0 %	0.0 %	0.0 %	
	% within column	3.1 %	6.3 %	0.7 %	0.0 %	0.0 %	0.0 %	
	% of total	0.1 %	0.1 %	0.4 %	0.0 %	0.0 %	0.0 %	
Total	Observed	32	16	765	562	4	3	1382
	Expected	32	16	765	562	4	3	
	% within row	2.3 %	1.2 %	55.4 %	40.7 %	0.3 %	0.2 %	

TRA12WrTV Corpus							
Semantic Classes		Tense Aspect Structures					
		PRE_PRG	PRE_PRF	PRE_SIM	PST_SIM	PST_PRG	PST_PRF
% within column		100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
% of total		2.3 %	1.2 %	55.4 %	40.7 %	0.3 %	0.2 %

Appendix 4: Distributions of Semantic Classes of Verbs Used in Six English Tense – Aspect Structures across three Learner Levels

TRB12WrTV Corpus								
Semantic Classes		Tense-Aspect Structures						Total
		PRE_PRG	PRE_PRF	PRE_SIM	PST_SIM	PST_PRG	PST_PRF	
ACT	Observed	113	43	383	759	115	43	1456
	Expected	33.889	40.210	720.98	586.30	34.416	40.210	
	% within row	7.8 %	3.0 %	26.3 %	52.1 %	7.9 %	3.0 %	
	% within column	58.5 %	18.8 %	9.3 %	22.7 %	58.7 %	18.8 %	
	% of total	1.4 %	0.5 %	4.6 %	9.2 %	1.4 %	0.5 %	
MNT	Observed	30	42	1252	584	30	42	1980
	Expected	46.085	54.682	980.45	797.30	46.802	54.682	
	% within row	1.5 %	2.1 %	63.2 %	29.5 %	1.5 %	2.1 %	
	% within column	15.5 %	18.3 %	30.5 %	17.5 %	15.3 %	18.3 %	
	% of total	0.4 %	0.5 %	15.1 %	7.0 %	0.4 %	0.5 %	
CMM	Observed	10	22	85	345	11	22	495
	Expected	11.521	13.670	245.11	199.33	11.700	13.670	

TRB12WrTV Corpus

Semantic Classes		Tense-Aspect Structures						Total
		PRE_PRG	PRE_PRF	PRE_SIM	PST_SIM	PST_PRG	PST_PRF	
EXT	% within row	2.0 %	4.4 %	17.2 %	69.7 %	2.2 %	4.4 %	
	% within column	5.2 %	9.6 %	2.1 %	10.3 %	5.6 %	9.6 %	
	% of total	0.1 %	0.3 %	1.0 %	4.2 %	0.1 %	0.3 %	
	Observed	34	89	2363	1500	34	89	4109
	Expected	95.639	113.478	2034.68	1654.60	97.125	113.478	
	% within row	0.8 %	2.2 %	57.5 %	36.5 %	0.8 %	2.2 %	
	% within column	17.6 %	38.9 %	57.5 %	44.9 %	17.3 %	38.9 %	
	% of total	0.4 %	1.1 %	28.5 %	18.1 %	0.4 %	1.1 %	
	Observed	6	19	11	0	6	19	61
	Expected	1.420	1.685	30.21	24.56	1.442	1.685	
OCC	% within row	9.8 %	31.1 %	18.0 %	0.0 %	9.8 %	31.1 %	
	% within column	3.1 %	8.3 %	0.3 %	0.0 %	3.1 %	8.3 %	
	% of total	0.1 %	0.2 %	0.1 %	0.0 %	0.1 %	0.2 %	

TRB12WrTV Corpus

Semantic Classes		Tense-Aspect Structures						Total
		PRE_PRG	PRE_PRF	PRE_SIM	PST_SIM	PST_PRG	PST_PRF	
FAC	Observed	0	0	0	14	0	0	14
	Expected	0.326	0.387	6.93	5.64	0.331	0.387	
	% within row	0.0 %	0.0 %	0.0 %	100.0 %	0.0 %	0.0 %	
	% within column	0.0 %	0.0 %	0.0 %	0.4 %	0.0 %	0.0 %	
	% of total	0.0 %	0.0 %	0.0 %	0.2 %	0.0 %	0.0 %	
ASP	Observed	0	14	12	137	0	14	177
	Expected	4.120	4.888	87.65	71.27	4.184	4.888	
	% within row	0.0 %	7.9 %	6.8 %	77.4 %	0.0 %	7.9 %	
	% within column	0.0 %	6.1 %	0.3 %	4.1 %	0.0 %	6.1 %	
	% of total	0.0 %	0.2 %	0.1 %	1.7 %	0.0 %	0.2 %	
Total	Observed	193	229	4106	3339	196	229	8292
	Expected	193	229	4106	3339	196	229	
	% within row	2.3 %	2.8 %	49.5 %	40.3 %	2.4 %	2.8 %	

TRB12WrTV Corpus

		Tense-Aspect Structures						
Semantic Classes		PRE_PRG	PRE_PRF	PRE_SIM	PST_SIM	PST_PRG	PST_PRF	Total
	% within column	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	
	% of total	2.3 %	2.8 %	49.5 %	40.3 %	2.4 %	2.8 %	

Appendix 5: Distributions of Semantic Classes of Verbs Used in Six English Tense – Aspect Structures across three Learner Levels

TRC12WrTV

Semantic Classes		Tense-Aspect Structures						Total
		PRE_PRG	PRE_PRF	PRE_SIM	PST_SIM	PST_PRG	PST_PRF	
ACT	Observed	107	64	442	454	222	29	1318
	Expected	48.499	44.591	711.3	442.53	49.032	22.029	
	% within row	8.1 %	4.9 %	33.5 %	34.4 %	16.8 %	2.2 %	
	% within column	39.2 %	25.5 %	11.0 %	18.2 %	80.4 %	23.4 %	
	% of total	1.4 %	0.9 %	6.0 %	6.1 %	3.0 %	0.4 %	
MNT	Observed	21	31	829	306	14	32	1233
	Expected	45.371	41.715	665.4	413.99	45.870	20.608	
	% within row	1.7 %	2.5 %	67.2 %	24.8 %	1.1 %	2.6 %	
	% within column	7.7 %	12.4 %	20.7 %	12.3 %	5.1 %	25.8 %	
	% of total	0.3 %	0.4 %	11.2 %	4.1 %	0.2 %	0.4 %	
CMM	Observed	72	5	67	167	11	10	332
	Expected	12.217	11.232	179.2	111.47	12.351	5.549	
	% within row	21.7 %	1.5 %	20.2 %	50.3 %	3.3 %	3.0 %	

TRC12WrTV								
Semantic Classes		Tense-Aspect Structures						Total
		PRE_PRG	PRE_PRF	PRE_SIM	PST_SIM	PST_PRG	PST_PRF	
EXT	% within column	26.4 %	2.0 %	1.7 %	6.7 %	4.0 %	8.1 %	
	% of total	1.0 %	0.1 %	0.9 %	2.3 %	0.1 %	0.1 %	
	Observed	64	117	2631	1442	22	46	4322
	Expected	159.038	146.222	2332.6	1451.15	160.786	72.237	
	% within row	1.5 %	2.7 %	60.9 %	33.4 %	0.5 %	1.1 %	
	% within column	23.4 %	46.6 %	65.7 %	57.9 %	8.0 %	37.1 %	
	% of total	0.9 %	1.6 %	35.5 %	19.4 %	0.3 %	0.6 %	
	Observed	9	24	19	26	5	2	85
OCC	Expected	3.128	2.876	45.9	28.54	3.162	1.421	
	% within row	10.6 %	28.2 %	22.4 %	30.6 %	5.9 %	2.4 %	
	% within column	3.3 %	9.6 %	0.5 %	1.0 %	1.8 %	1.6 %	
	% of total	0.1 %	0.3 %	0.3 %	0.4 %	0.1 %	0.0 %	
FAC	Observed	0	4	0	18	0	0	22

TRC12WrTV

		Tense-Aspect Structures						Total
Semantic Classes		PRE_PRG	PRE_PRF	PRE_SIM	PST_SIM	PST_PRG	PST_PRF	
ASP	Expected	0.810	0.744	11.9	7.39	0.818	0.368	
	% within row	0.0 %	18.2 %	0.0 %	81.8 %	0.0 %	0.0 %	
	% within column	0.0 %	1.6 %	0.0 %	0.7 %	0.0 %	0.0 %	
	% of total	0.0 %	0.1 %	0.0 %	0.2 %	0.0 %	0.0 %	
	Observed	0	6	16	78	2	5	107
	Expected	3.937	3.620	57.7	35.93	3.981	1.788	
	% within row	0.0 %	5.6 %	15.0 %	72.9 %	1.9 %	4.7 %	
	% within column	0.0 %	2.4 %	0.4 %	3.1 %	0.7 %	4.0 %	
	% of total	0.0 %	0.1 %	0.2 %	1.1 %	0.0 %	0.1 %	
	Observed	273	251	4004	2491	276	124	7419
Total	Expected	273	251	4004	2491	276	124	
	% within row	3.7 %	3.4 %	54.0 %	33.6 %	3.7 %	1.7 %	
	% within column	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	

TRC12WrTV

		Tense-Aspect Structures						Total
Semantic Classes		PRE_PRG	PRE_PRF	PRE_SIM	PST_SIM	PST_PRG	PST_PRF	
	% of total	3.7 %	3.4 %	54.0 %	33.6 %	3.7 %	1.7 %	

Appendix 6: Pre-Test and Post-Test for Present Progressive/Simple Present

Kermer (2016, p. 228-231)

Pre-test

A: Choose the correct answer.

Read the following sentences and tick the correct answer.

☐ read ☐ is reading

1	I _____ an English test at the moment. ☐ write ☐ am writing
2	I _____ football every Sunday. ☐ play ☐ am playing
3	Every Sunday I meet my friends in the city. But this Sunday I _____ my grandparents. ☐ visit ☐ am visiting
4	Eric eats a lot of pizza. He usually _____ a pizza with a lot of cheese. ☐ likes ☐ is liking
5	I never go to the swimming pool, but today I _____ with my best friend. ☐ go ☐ am going
6	I _____ the poem again and again. ☐ learn ☐ learning

B: Choose the best word.

Decide which form of the verb you use. For example: *gives* or *is giving*.

Harold Black is a great football player. He plays (*play*) two or three games every week. He _____ (*travel*) a lot. This week he _____ (*stay*) at an expensive hotel. He is at his hotel now. He _____ (*have*) his breakfast in the dining-room. He _____ (*drink*) a cup of tea. Harold is always very busy. Sometimes he gets dressed too quickly and this morning he _____ (*wear*) one blue sock and one red sock!

C: Sophie's Saturdays.

Every Saturday Sophie sleeps until 9 o'clock. Then Sophie and her parents have breakfast. After that, she usually plays football or other games with her brother in the backyard. Sophie's mother makes pancakes for lunch. After that, they visit Sophie's grandparents. In the evenings, Sophie watches TV or reads a book.

This Saturday is different. Look at the pictures and describe what is happening this Saturday.

get up very early	morning – catch fish	lunch – have picnic	afternoon – water the flowers	afternoon – swim in the pool	evening – wash the dishes
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This Saturday is different. Sophie is getting up very early. In the morning Sophie

Post-test

A: Choose the correct answer.

Read the following sentences and tick the correct answer.

☐ read ☐ is reading

1	I usually _____ to school with my friend. ☐ walk ☐ am walking
2	Every year we go to Italy, but this year we _____ to Spain. ☐ go ☐ are going
3	Do you _____ comics in bed? Are you _____ comics in bed? ☐ read ☐ reading
4	Every summer holiday I _____ a sandcastle. ☐ build ☐ am building
5	I _____ volleyball at <u>this</u> moment. ☐ do not play ☐ am not playing
6	I never liked mushrooms, but these days I _____ them more and more. ☐ like ☐ am liking

B: Choose the best word.

Decide which form of the verb you use. For example: *gives* or *is giving*.

Sophie really likes Sundays. She plays (play) a lot of games every Sunday.
She also _____ (*read*) a lot of great detective stories on
Sundays. This Sunday she _____ (*visit*) her best friend.
Sophie is in the backyard right now. She _____ (*have*) her
lunch outside. She _____ (*like*) the sunshine very much.
Sometimes she forgets her sun hat, but this morning she
_____ (*wear*) a white sun hat with big flowers on it.

C: Tell me about you.

a) What do you do every Monday afternoon? Activities? Hobbies? Eating habits? Write 3 sentences.

b) What is different this Monday afternoon? What are you doing this Monday afternoon? Write 3 sentences (activities; events).



Appendix 7: Pre-Test and Post-Test for Present Perfect/Simple Past

Kermer (2016, p. 232-235)

Pre-test

A: Correct answer

Read the following sentences and decide which answer is the right one.
Tick the correct answer.

☐ wrote ☐ have written

1	Our train _____ and now we're stranded here. ☐ left ☐ has just left
2	Have you ever been to England? Yes, I _____ to England. ☐ was ☐ have been
3	Have you ever been to England? Yes, I _____ there in 2010 and 2011. ☐ was ☐ have been
4	I _____ abroad in my life. It's a pity! ☐ was never ☐ have never been
5	The English lesson _____ yet. ☐ did not start ☐ has not started
6	I _____ a student at this school since 2008. ☐ was ☐ have been
7	I _____ you a little present. I think you might like it. ☐ bought ☐ have bought

B: Choose the best word.

Decide which form of the verb you must use. For example: *was* or *has been/trying* or *has tried*.

Your friend has been on the London Eye. She _____ (*be*) on it with her parents and another friend a year ago. Your friend _____ (*try*) English food. She tried it when she visited London last month. Your friend _____ (*take*) some great pictures of London. She _____ (*take*) most pictures on the last day of her trip. Your friend _____ (*just, show*) you the pictures. They look amazing!

C: About you.

a) Tell me about your last summer holidays. Where? Who? How long? Which activities?

Write at least 5 sentences.

Last summer I went

b) What have you done this week? Write at least 3 sentences.

This week I have

Post-test

A: Correct answer

Read the following sentences and decide which answer is the right one.

Tick the correct answer

☐ wrote ☐ have written

1	I _____ in Hildesheim all my life. ☐ lived ☐ have lived
2	Have you visited London recently? Yes, I _____ there. ☐ was ☐ have been
3	I _____ my arm very badly and I am still in pain. ☐ broke ☐ have broken
4	I _____ a very busy week so far. ☐ had ☐ have had
5	Soon we have holidays. Last summer holidays I _____ to Italy. ☐ went ☐ have been
6	We _____ each other for a very long time and we are still friends. ☐ knew ☐ have known
7	Soon I go on holiday, but I _____ about what to take with me. ☐ did not think ☐ have not thought

B: Choose the best word.

Decide which form of the verb you must use. For example: *was* or *has been/trying* or *has tried*.

Since computers were first introduced to the public in the early 1980's, technology _____ (*change*) a great deal. The first computers _____ (*be*) simple machines. They were expensive and customers often _____ (*pay*) thousands of dollars. Times _____ (*change*). We are still playing video games, but today's games _____ (*become*) faster, more exciting interactive adventures.

C: About you.

a) What have we done in our English lessons this term? Activities? Topics? Write at least 3 sentences.

This term we

b) What did you do last weekend? Activities? Write 3 sentences.

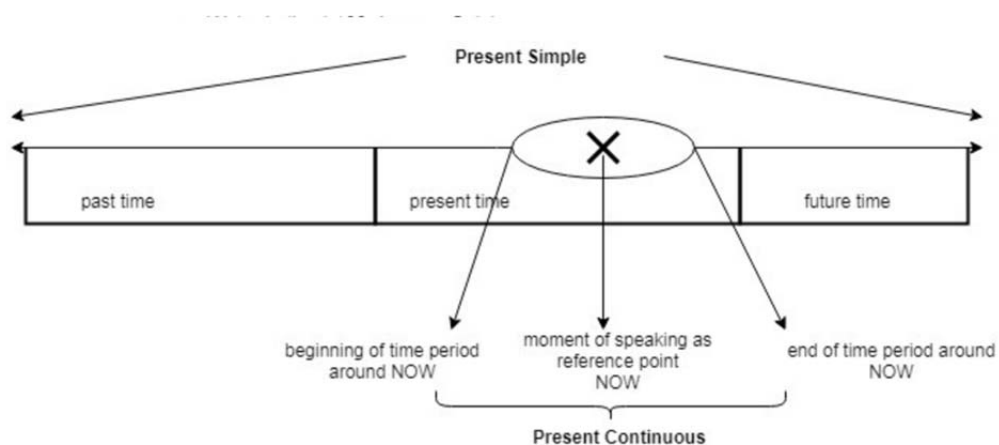
Last weekend I

Appendix 8: Sample Materials for Cognitive Treatment

Materials for Present Simple and Present Progressive

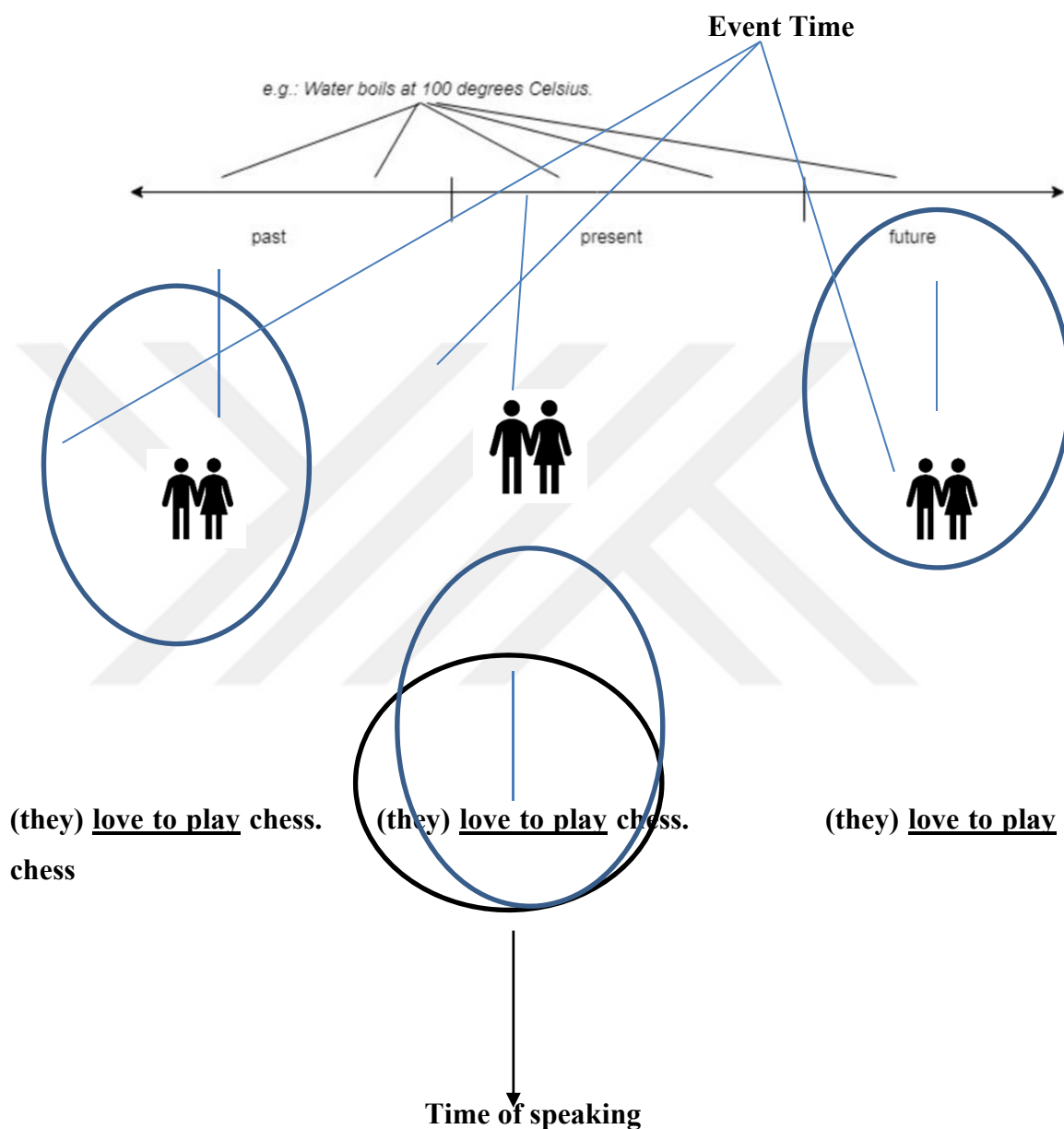
Present Simple	Present Progressive
Understand Agree Know Need Believe Like Love	Read Listen Watch Walk Study Write Talk

Present Simple on timeline diagram (Choroleeva, 2018)



Present Simple Tense

Kim and Mark (they) love to play chess (repeated)



Jerry knows the answer

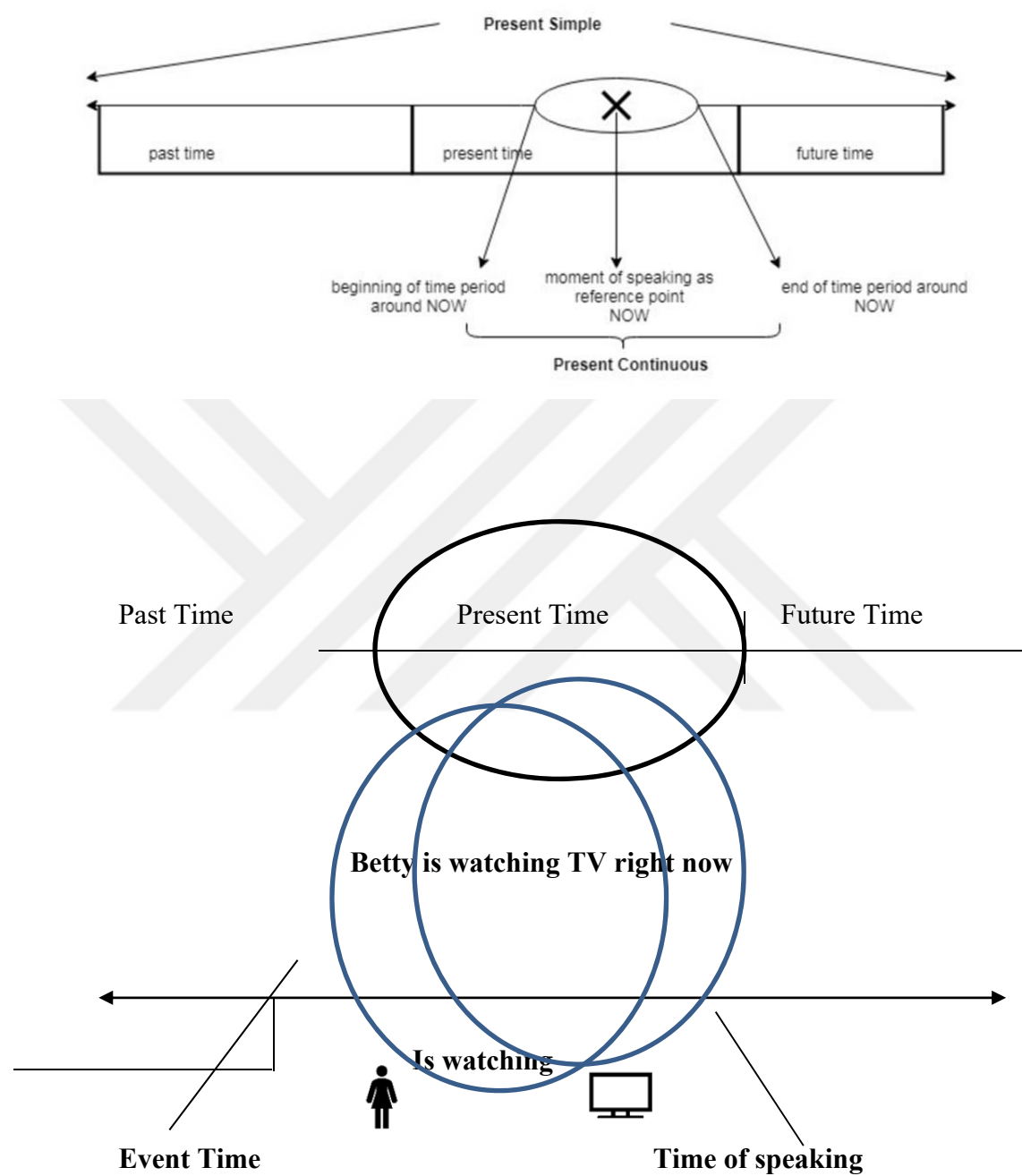
I understand English grammar

Students need to study more

She believes all the answers are correct

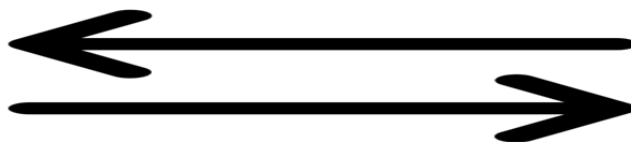
They like to speak in English

Present Continuous Tense



Present Simple vs Present Continuous

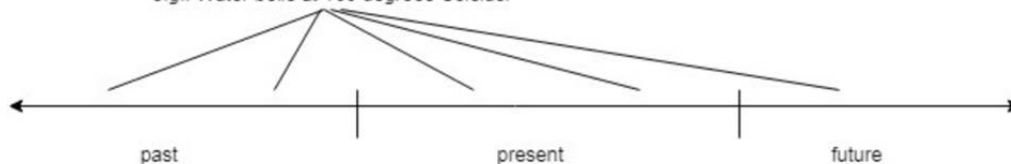
Walk

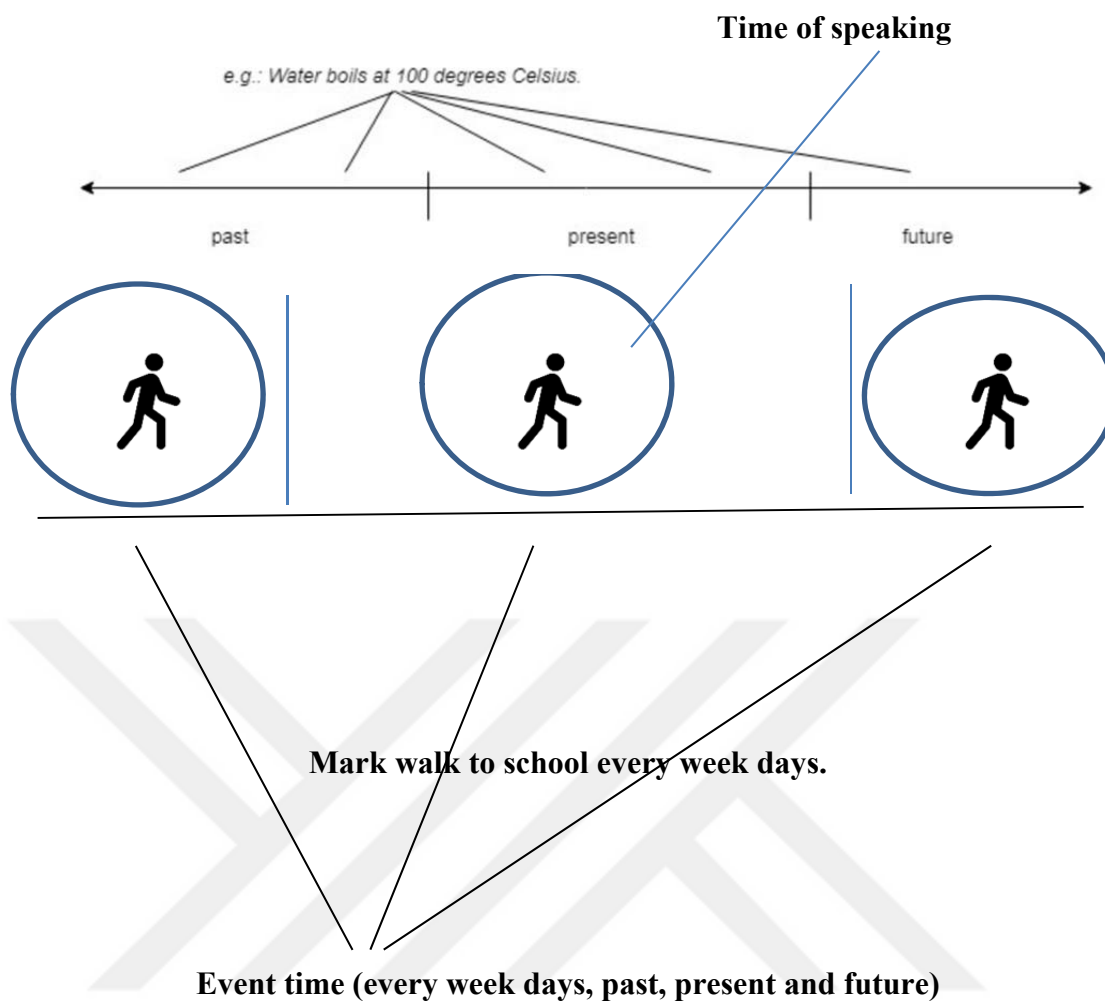


Present Simple

Mark walks to school every week days.

e.g.: Water boils at 100 degrees Celsius.





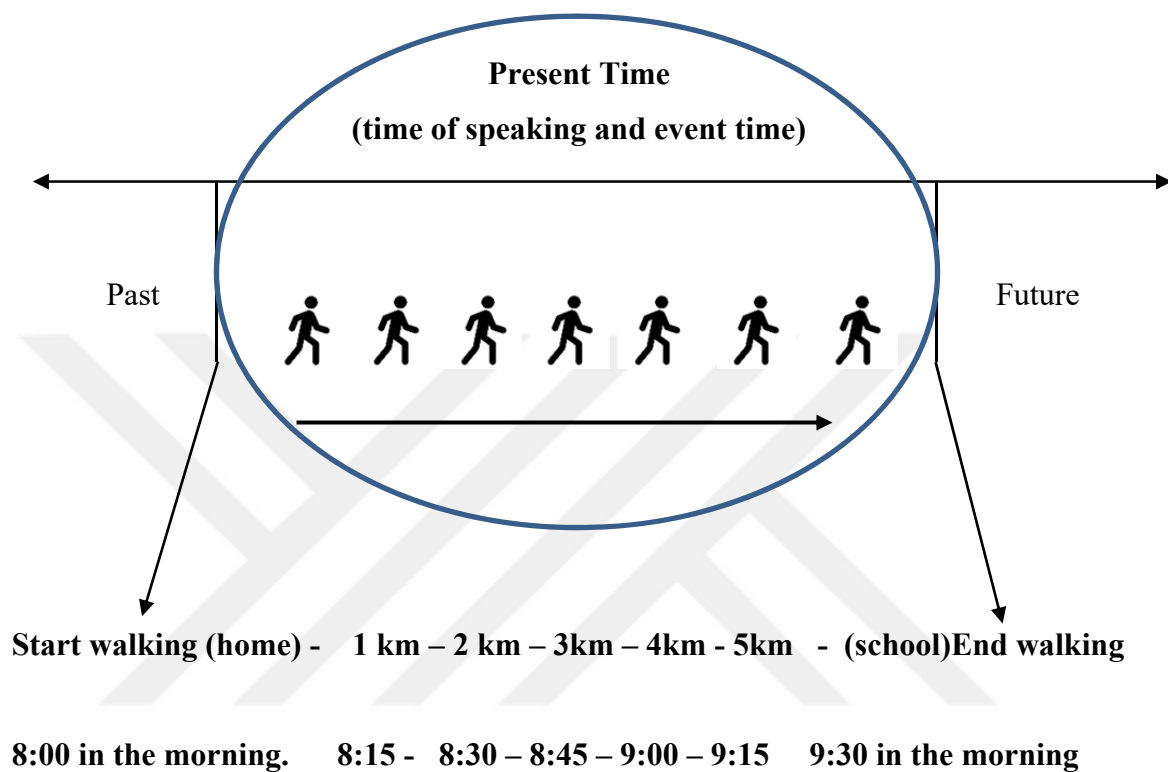
She reads book only at the weekends.

He listens to pop music

We usually study lessons in the afternoons.

Present Continuous Tense

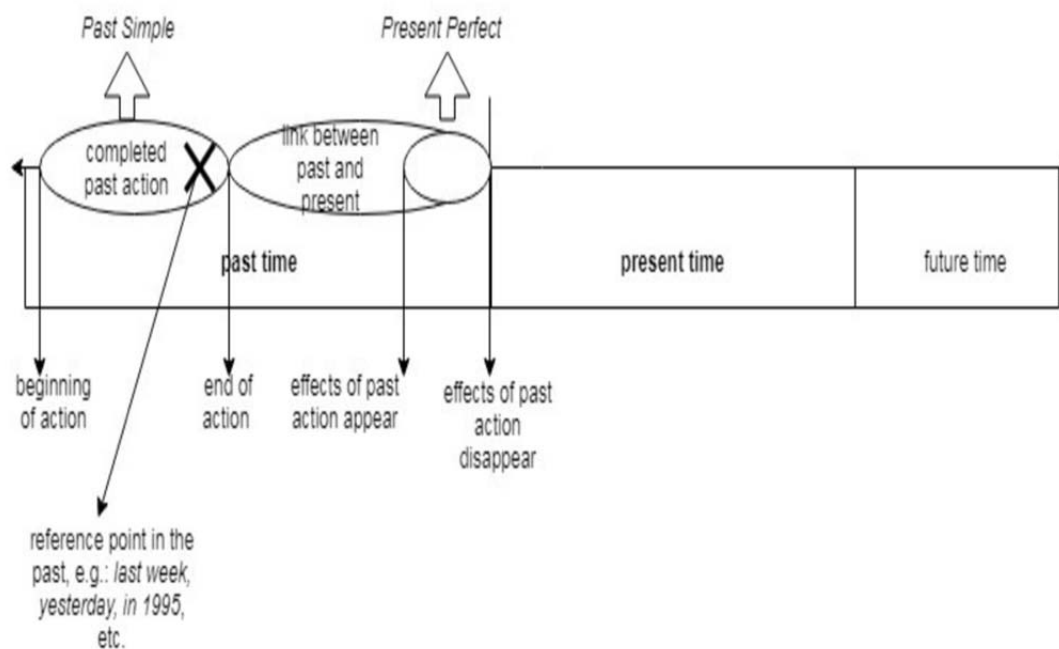
Mark is walking to school this morning



Materials for Past Simple and Present Perfect

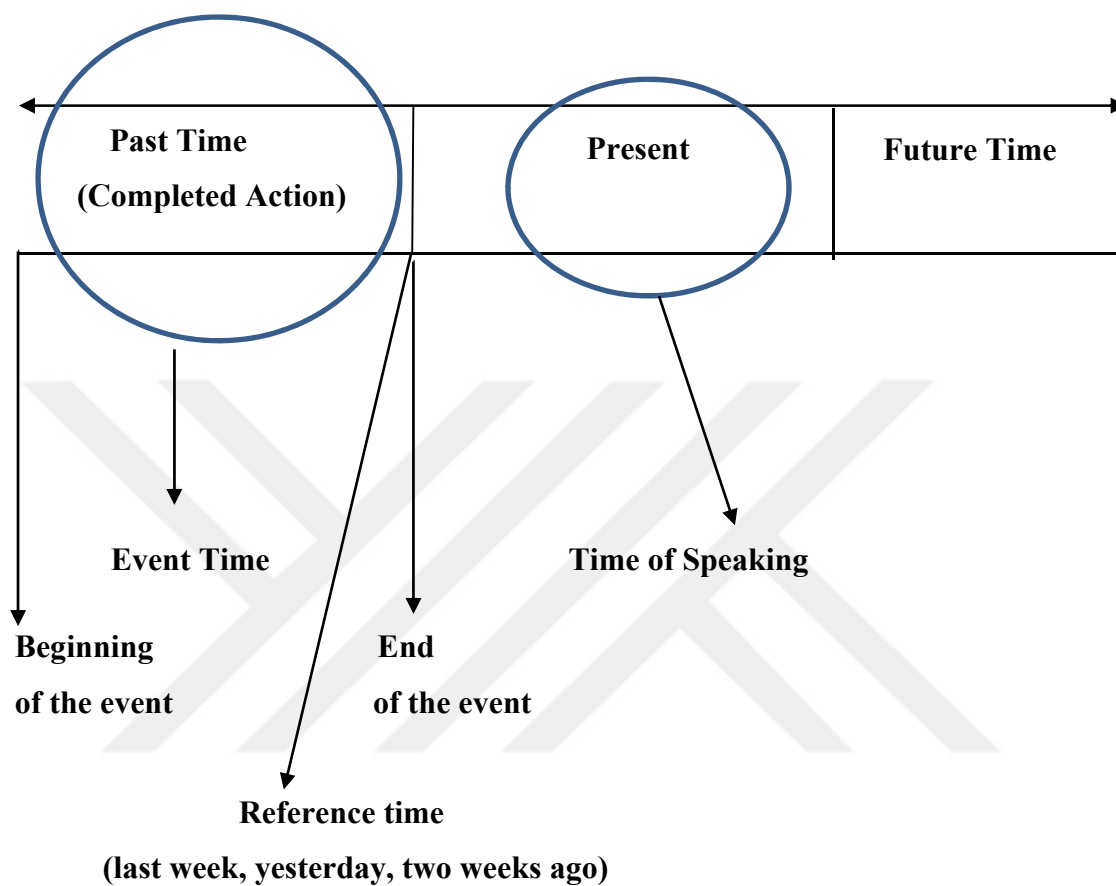
Past Simple	Present Perfect
Go See Work Play Meet Stay Visit	Go/Be Work Write Miss Study Take Call

Past Simple and Present Perfect on timeline diagram (adopted from Choroleeva, 2018)

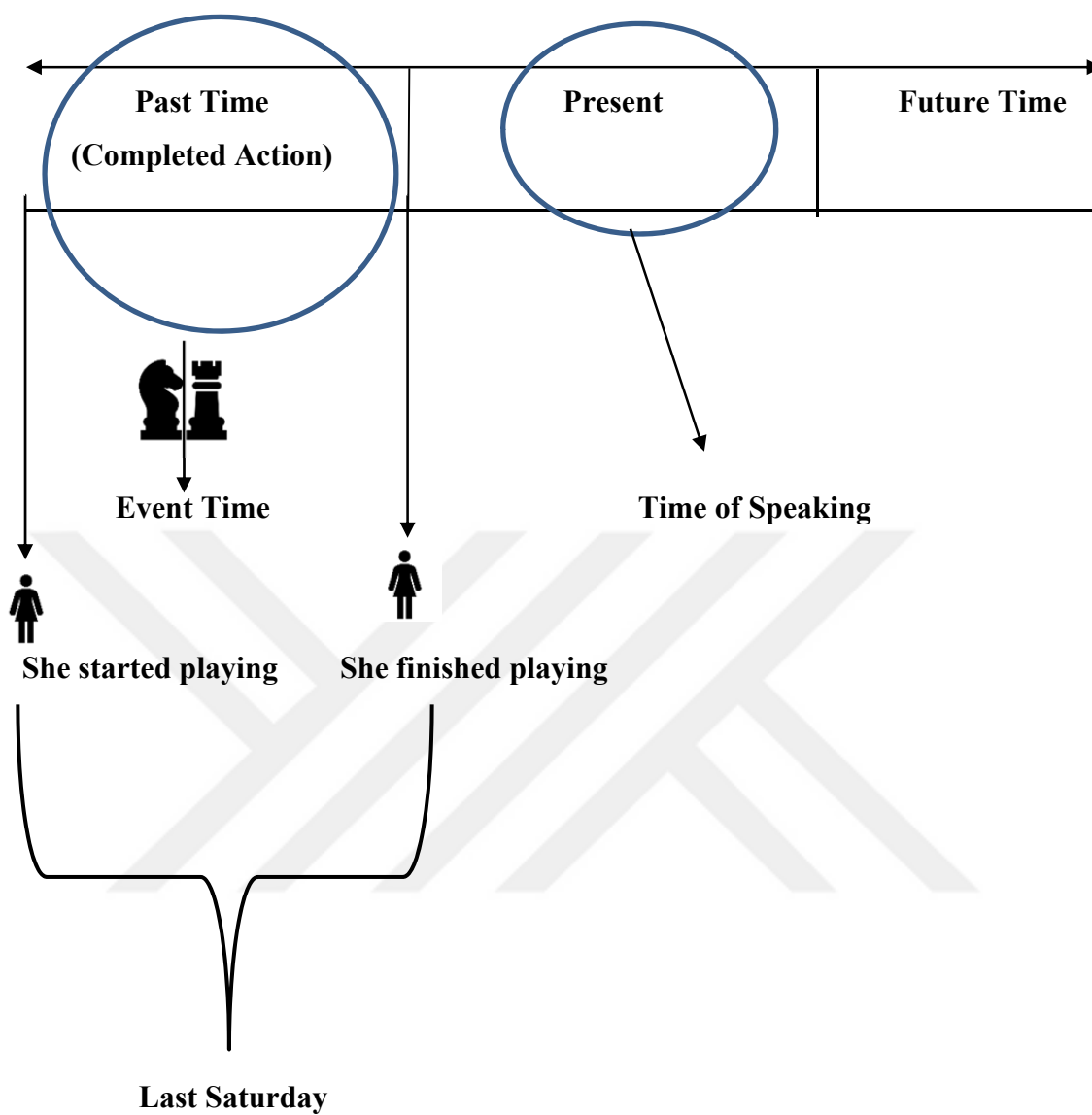


Past Simple Tense

Jessie played chess with her friend last Saturday

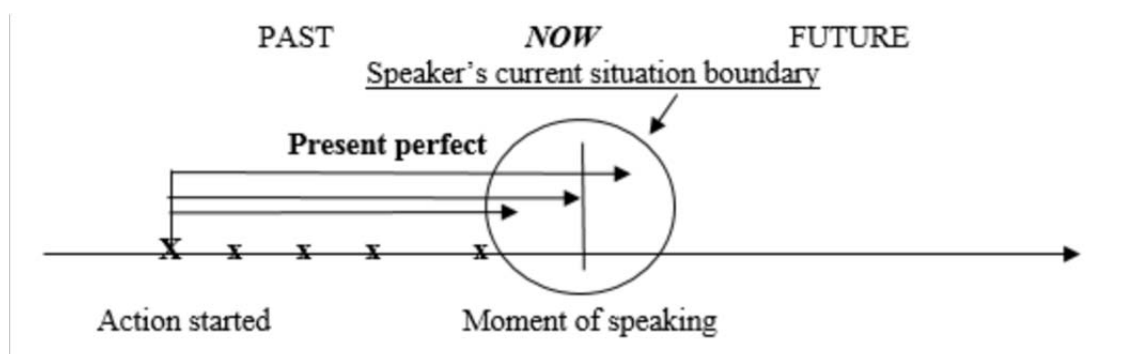


Jessie played chess with her friend last Saturday

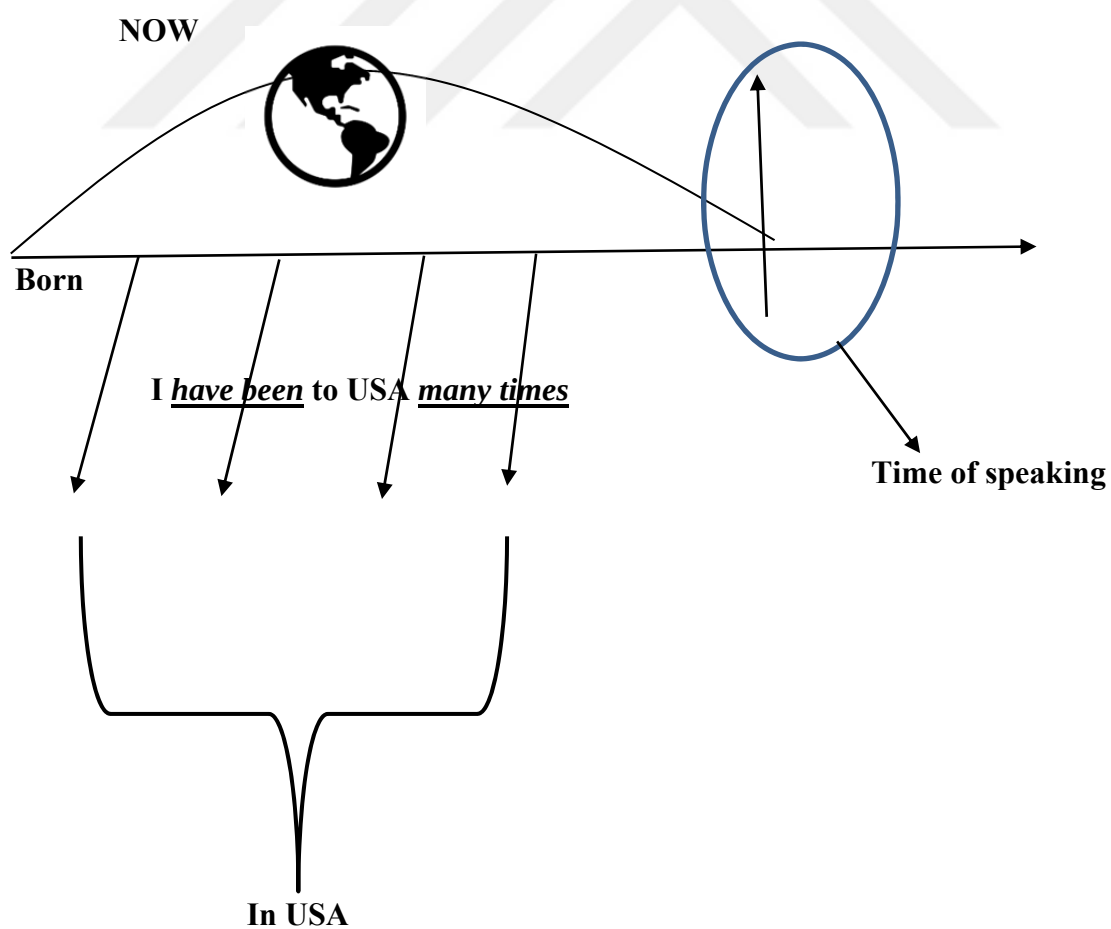


Jessie played chess with her friend last Saturday

Present Perfect Tense

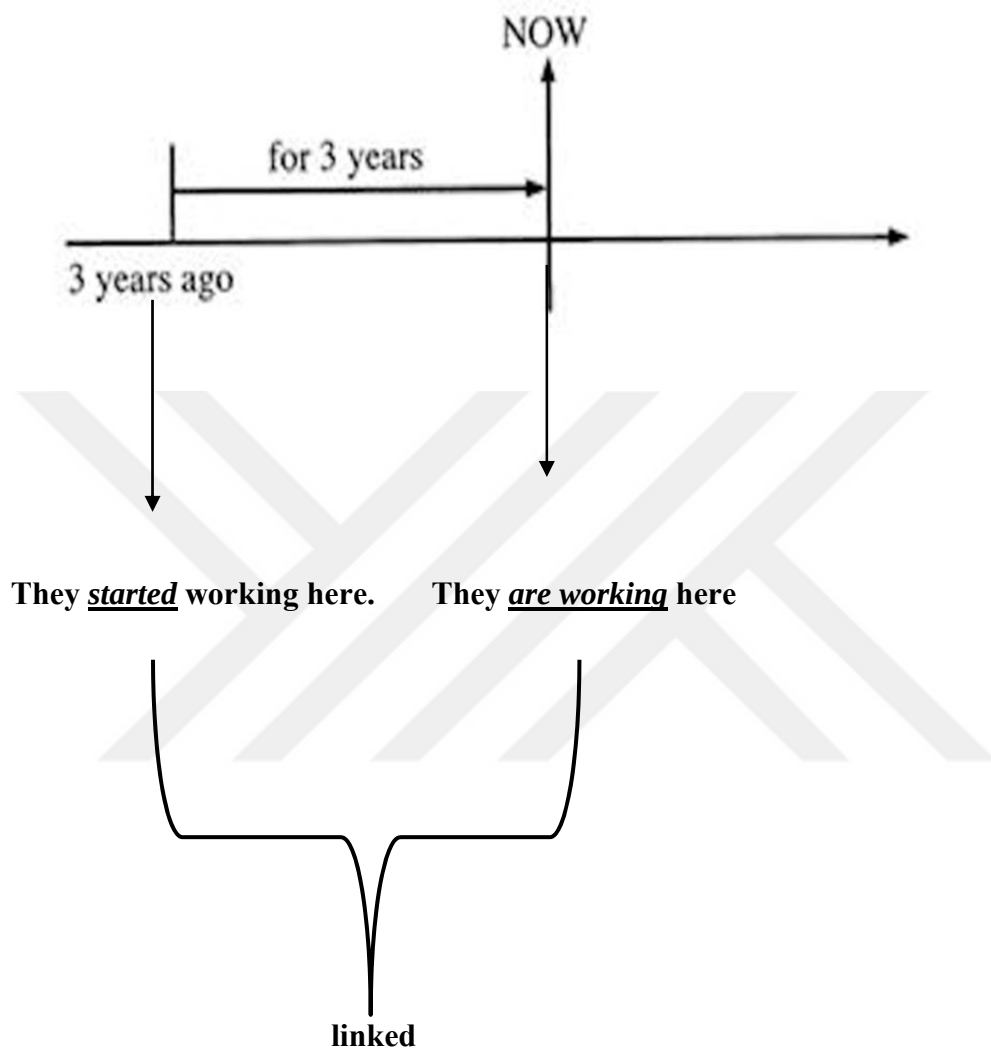


Present Perfect Tense – First Sense (Experience)



Present Perfect Tense – Second Sense (unfinished – duration)

They have worked here for three years



They have worked here for three years

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Publications

- 1) **Bozdag Fatih Ünal, Badem Nebahat (2017). A Comparison Of Communication Verbs Used By Turkish Efl Learners And English Native Speakers: A Corpus Based Study. Gaziantep Üniversitesi Sosyal Bilimler Dergisi, 16, 879-891., Doi: 21547**

Book Chapters

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BOZDAG FATİH ÜNAL (2015). The Use of vertically prepositions in argumentative essays of Turkish EFL Learners. Language in focus

BOZDAG FATİH ÜNAL,BADEM NEBAHAT (2014). A Comparison Of Communication Verbs Used By Turkish Efl Learners And Native American Students A Corpus Based Study A Comparison Of Communication Verbs Used By Turkish Efl Learners And Native American Students A Corpus Based Study. Language in Focus Exploring the challenges and opportunities in Linguistics and English Language Teaching (ELT))